

Potomac and Shenandoah River Basins

Cause Group Code: A02R-02-BEN North Fork Catoctin Creek

Location: Begins at the confluence with an unnamed tributary to North Fork Catoctin Creek, approximately 0.15 rivermile downstream

from the Route 287 bridge, and continues downstream until the confluence with Catoctin Creek.

City / County: Loudoun Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

Two biological monitoring events in 2008, and one biological monitoring event in 2007, 2009, 2010 and 2011 at station 1aNOC000.42 each resulted in a VSCI score which indicates an impaired macroinvertebrate community.

North Fork Catoctin Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

4.42

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A02R-04-BEN North Fork Catoctin Creek

Location: Begins at the confluence of an unnamed tributary to North Fork Catoctin Creek, approximately 0.75 rivermile upstream from

Route 719 near Hillsboro, and continues downstream 2.45 rivermiles to an unnamed impoundment.

City / County: Loudoun Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

Biological monitoring events in 2010 and 2011 at station 1aNOC009.37 resulted in a VSCI score which indicates an impaired macroinvertebrate community.

North Fork Catoctin Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

2.54

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A03R-02-BAC Clarks Run

Location: Begins at the confluence with an unnamed tributary to Clarks Run, at rivermile 5.4, and continues downstream until the

confluence with the Potomac River.

City / County: Loudoun Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

E. coli bacteria criterion excursions (4 of 12 samples - 33.3%) from station 1aCLK002.40, at Route 658.

Clarks Run Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type:

5.46

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A05R-01-BEN Wancopin Creek

Location: Begins at the confluence with an unnamed tributary to Wancopin Creek, just upstream from Route 50, and continues

downstream until the confluence with Goose Creek.

City / County: Loudoun Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

2008 Assessment: Two biological monitoring events in 2002 at station 1aWAC003.31 (Route 50) both resulted in a VSCI score which indicates an impaired macroinvertebrate community.

Wancopin Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

3.44

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A05R-02-BEN Jeffries Branch

Location: Begins at the headwaters of Jeffries Branch and continues downstream until the confluence with Panther Skin Creek.

City / County: Loudoun Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

Four biological monitoring events (2010-2011) at station 1aJEE002.22, at Route 743, resulted in a VSCI score indicating an impaired macroinvertebrate community.

Jeffries Branch

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

6.19

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A06R-01-BEN North Fork Goose Creek

Location: Begins at the confluence with an unnamed tributary to North Fork Goose Creek, approximately 0.23 rivermile upstream

from Route 725, and continues downstream until the confluence with Crooked Run.

City / County: Loudoun Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

One biological monitoring event in 2008 at station 1aNOG005.69 (Route 722) resulted in a VSCI score which indicates an impaired macroinvertebrate community.

North Fork Goose Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

4.69

Sources:

Source Unknown



4.81

Potomac and Shenandoah River Basins

Cause Group Code: A07R-02-BEN North Fork Beaverdam Creek

Location: Begins at the headwaters of North Fork Beaverdam Creek and continues downstream until the confluence with Butchers

Branch.

City / County: Loudoun Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

2008 Assessment: One of two biological monitoring events in 2001 at station 1aNOB007.97 (Route 831) resulted in a VSCI score which indicates an impaired macroinvertebrate community, as does the mean score of these two samples.

North Fork Beaverdam Creek Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A08R-01-PCB Broad Run, Difficult Run, Goose Creek

Location: Includes the following tributaries between the Virginia/Maryland state line near the Route 340 bridge (Loudoun County) to the I-395 bridge in Arlington County (above the Woodrow Wilson Bridge): Goose Creek up to the Dulles Greenway Road

Bridge, Broad Run up to the Route 625 bridge, and Difficult Run up to the Route 7 bridge.

City / County: Fairfax Co. Loudoun Co.

Use(s): Fish Consumption

Cause(s) /

VA Category: PCB in Fish Tissue / 5A

The fish consumption use is categorized as impaired due to a Virginia Department of Health, Division of Health Hazards Control, PCB fish consumption advisory. The advisory, dated 12/13/04, limits American eel consumption to no more than two meals per month.

Broad Run, Difficult Run, Goose Creek

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

PCB in Fish Tissue - Total Impaired Size by Water Type: 39.63 15.34

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A08R-03-BEN Little River

Location: Begins at the confluence with Bartons Creek and continues downstream until the confluence with an unnamed tributary.

City / County: Fauguier Co. Loudoun Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

One biological monitoring event in 2008 at station 1aLIV012.12 (Route 776) resulted in a VSCI score which indicates an impaired macroinvertebrate community.

Little River

Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

4.36

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A08R-04-BEN Tuscarora Creek

Location: Begins at the confluence with Town Branch and continues downstream until the confluence with Goose Creek.

City / County: Loudoun Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

A total of 2 biological monitoring events in 2012 at station 1aTUS003.19 resulted in a VSCI score which indicates an impaired macroinvertebrate community.

Tuscarora Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

3.89

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A09R-01-BAC Unnamed tributary to the Potomac River

Location: Begins at an unnamed tributary at rivermile 1.82, and continues downstream to the confluence with the Potomac River.

City / County: Loudoun Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

E. coli bacteria criterion excursions (6 of 12 samples - 50.0%) from station 1aXLE001.62, at Algonkian Parkway.

Unnamed tributary to the Potomac River

Estuary Reservoir (Sq. Miles) (Acres)

River (Miles)

Escherichia coli - Total Impaired Size by Water Type:

1.74

Sources:

Recreation

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A09R-01-BEN Broad Run

Location: Begins at the confluence with Horsepen Run and continues downstream until the confluence with the Potomac River.

City / County: Loudoun Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

Two biological monitoring events in 2007, 2008, and 2009 at station 1aBRB002.15, at Route 7, and two biological monitoring events in each of the following years: 2007, 2008 and 2009 at station 1aBRB006.97 (upstream from Waxpool Road) resulted in a VSCI score which indicates an impaired macroinvertebrate community.

Broad Run

Aquatic Life

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

River (Sq. Miles)

Reservoir (Acres)

River (Miles)

8.42

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A09R-01-HG Broad Run

Location: Begins at the confluence with Beaverdam Run and continues downstream until the confluence with the Potomac River.

City / County: Loudoun Co.
Use(s): Fish Consumption

Cause(s) /

VA Category: Mercury in Fish Tissue / 5A

Excursions above the water quality criterion based tissue value (TV) of 300 parts per billion (ppb) for mercury (Hg) in fish tissue were recorded in two species of fish; smallmouth bass (2004) and yellow bullhead catfish (2004) at monitoring station 1aBRB002.15. (2010 Assessment)

Broad Run

Estuary Reservoir (Miles)

Fish Consumption

Mercury in Fish Tissue - Total Impaired Size by Water Type:

2.93

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A09R-02-BAC Broad Run

Location: Begins at the confluence with Horsepen Run , and continues downstream until the confluence with Cabin Branch, at

rivermile 5.35. Also, begins at the confluence with Beaverdam Run and continues downstream until the confluence with the

Potomac River.

City / County: Loudoun Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

E. coli bacteria criterion excursions (4 of 19 samples - 21.1%) from station 1aBRB006.33, at Route 625 (Waxpool Rd). Also, E. coli bacteria criterion excursions (8 of 41 samples - 19.5%) from station 1aBRB002.15, at Route 7.

Broad Run Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type:

6.15

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A09R-02-BEN Broad Run

Location: Begins at the confluence with Lenah Run and continues downstream until the confluence with South Fork Broad Run.

City / County: Loudoun Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

One biological monitoring event in 2007 and two biological events in 2009 at station 1aBRB015.43, upstream of Route 621, resulted in a VSCI score which indicates an impaired macroinvertebrate community.

Broad Run Estuary Reservoir River Aquatic Life (Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

1.42

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A09R-03-BAC Broad Run

Location: Begins at the confluence with Lenah Run and continues downstream until the confluence with South Fork Broad Run.

City / County: Loudoun Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

E. coli bacteria criterion excursions (5 of 18 samples - 27.8%) from station 1aBRB015.38, at Route 621.

Broad RunEstuaryReservoirRiverRecreation(Sq. Miles)(Acres)(Miles)

Escherichia coli - Total Impaired Size by Water Type:

1.42

Sources:

Source Unknown



5.19

Potomac and Shenandoah River Basins

Cause Group Code: A09R-03-BEN Horsepen Run

Location: Begins at the headwaters of Horsepen Run and continues downstream until the confluence with an unnamed tributary to

Horsepen Run, approx. 1.0 rivermile downstream from Rt 28.

City / County: Fairfax Co. Loudoun Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

A total of two biological monitoring events in 2010 at station 1aHPR003.93 resulted in a VSCI score which indicates an impaired macroinvertebrate community.

Horsepen Run

Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

Sources:

Source Unknown



Potomac and Shenandoah River Basins

South Fork Broad Run Cause Group Code: A09R-04-BAC

Location: Begins at the headwaters of South Fork Broad Run and continues downstream until the confluence with Broad Run.

City / County: Loudoun Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

E. coli bacteria criterion excursions (2 of 5 samples - 40.0%) from station 1aSOR000.59, at Route 621.

South Fork Broad Run Estuary Reservoir River (Sq. Miles) (Acres) (Miles) Recreation 5.28

Escherichia coli - Total Impaired Size by Water Type:

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A09R-04-BEN South Fork Broad Run

Location: Begins at the headwaters of South Fork Broad Run and continues downstream until the confluence with Broad Run.

City / County: Loudoun Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

A total of four biological monitoring events in 2011 and 2012 at station 1aSOR000.59 resulted in a VSCI score which indicates an impaired macroinvertebrate community.

South Fork Broad Run

Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

5.28

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A09R-05-BAC Beaverdam Run

Location: Begins at the confluence with of an unnamed tributary to Beaverdam Run, in Ashburn Park, and continues downstream until

the confluence with Broad Run.

City / County: Loudoun Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

E. coli bacteria criterion excursions (2 of 17 samples - 11.8%) from station 1aBEM000.60, at Route 607.

Beaverdam Run Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type:

3.85

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A09R-06-BAC Indian Creek

Location: Begins at the headwaters of Indian Creek and continues downstream to the confluence with Horsepen Run.

City / County: Loudoun Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

E. coli bacteria criterion excursions (4 of 10 samples - 40.0%) from station 1alNI000.80, at Route 606 (Old Ox Road).

Indian Creek

Recreation

Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type:

3.48

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A10R-01-BEN Sugarland Run

Location: Begins at the confluence with Smilax Branch and continues downstream until the confluence with the Potomac River.

City / County: Fairfax Co. Loudoun Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

Two biological monitoring events in 2009 and in 2010 at station 1aSUG006.28 at Wiehle Avenue and two biological monitoring events in 2010 at station 1aSUG003.52 resulted in a VSCI score which indicates an impaired macroinvertebrate community.

Sugarland Run

Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

y Water Type: 9.71

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A11R-01-HEPOXID Difficult Run

Location: Begins at the confluence with Captain Hickory Run and continues downstream until the confluence with the Potomac River.

City / County: Fairfax Co.
Use(s): Fish Consumption

Cause(s) /

VA Category: Heptachlor epoxide / 5A

2008 Assessment: Excursions above of the water quality criterion based tissue screening value (TV) of 12 parts per billion (ppb) for heptachlor epoxide in fish tissue were recorded in one species of fish samples (2 total samples) in American eel (2001 and 2004), collected at monitoring station 1aDIF000.86.

Difficult Run

Estuary (Sq. Miles)

Reservoir (Miles)

River (Acres)

Heptachlor epoxide - Total Impaired Size by Water Type:

3.17

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A11R-02-BEN Captain Hickory Run

Location: Begins at the headwaters of Captain Hickory Run and continues downstream until the confluence with Difficult Run.

City / County: Fairfax Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

2008 Assessment: Two biological monitoring events in 2001 at station 1aCAH001.82 (upstream from Route 681) both resulted in a VSCI score which indicates an impaired macroinvertebrate community.

Captain Hickory Run

Estuary Reservoir River

Aquatic Life

(Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

3.27

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A11R-03-BEN Difficult Run

Location: Begins at confluence with Rocky Branch, approximately 0.25 rivermile upstream of Route 672, and continues downstream

until the confluence with Wolftrap Creek.

City / County: Fairfax Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

Two biological monitoring events in 2007 at station 1aDIF005.06 (Route 675) and two biological monitoring events in 2007 at station 1aDIF010.48 (Route 672) resulted in VSCI scores indicating an impaired macroinvertebrate community.

Difficult Run

Estuary Reservoir River
Aquatic Life (Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

6.37

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A11R-04-BEN Colvin Run

Location: Begins at the headwaters of Colvin Run and continues downstream until the confluence with an unnamed tributary

(streamcode XJJ) flowing from Lake Anne.

City / County: Fairfax Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

Two biological monitoring events in 2007 at station 1aCOV003.32 (Wiehle Ave) resulted in a VSCI score which indicates an impaired macroinvertebrate community.

Colvin Run

Estuary Reservoir River

Aquatic Life

(Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

2.09

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A11R-05-BEN Snakeden Branch

Location: Begins at the confluence with an unnamed tributary to Snakeden Branch, approximately 0.4 rivermile downstream from the

Twin Branches Road bridge, and continues downstream until the confluence with Difficult Run.

City / County: Fairfax Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

Two biological monitoring events in 2007 at station 1aSNA000.21, at Route 677 (Hunter Station Road) resulted in a VSCI score which indicates an impaired macroinvertebrate community.

Snakeden Branch

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

0.97

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A11R-06-BEN Little Difficult Run

Location: Segment begins at the confluence with South Fork Little Difficult Run and continues downstream until the confluence with

Difficult Run.

City / County: Fairfax Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

Two biological monitoring events in 2007 at station 1aLID000.64, at Route 669, resulted in a VSCI score which indicates an impaired macroinvertebrate community.

Little Difficult Run

Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

1.75

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A11R-07-BEN Old Courthouse Spring Branch

Location: Begins at the headwaters of Old Courthouse Spring Branch and continues downstream until the confluence with Wolftrap

Creek

City / County: Fairfax Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

Two biological monitoring events in 2007 at station 1aOCS000.43, at Laurel Hill Rd, resulted in a VSCI score which indicates an impaired macroinvertebrate community.

Old Courthouse Spring Branch

Estuary Reservoir (Sq. Miles) (Acres)

Aquatic Life

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

(Miles) 2.11

River

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A11R-08-BAC Nichols Run

Location: Begins at the headwaters of Nichols Run and continues downstream until the confluence with the Potomac River.

City / County: Fairfax Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

E. coli bacteria criterion excursions (3 of 11 samples - 27.3%) from station 1aNIC002.10, at Route 603.

Nichols RunEstuaryReservoirRiverRecreation(Sq. Miles)(Acres)(Miles)

Escherichia coli - Total Impaired Size by Water Type:

4.56

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A11R-08-BEN **Turkey Run**

Location: Begins at the headwaters of Turkey Run, near Langley High School, and continues downstream until the confluence with

the Potomac River.

City / County: Fairfax Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

Two biological monitoring events in 2009 at station 1aTUY000.26, upstream of the G.W. Parkway, resulted in a VSCI score which indicates an impaired macroinvertebrate community.

Turkey Run Estuary Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life** 1.34

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A11R-09-BEN Dead Run

Location: Begins at the headwaters of Dead Run and continues downstream until the confluence with the Potomac River.

City / County: Fairfax Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

Two biological monitoring events in 2009 at station 1aDED000.29, upstream of G.W. Parkway, resulted in a VSCI score which indicates an impaired macroinvertebrate community.

Dead Run

Estuary Reservoir River

Aquatic Life

(Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

2.82

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A12E-01-CDANE Four Mile Run

Location: Includes the tidal waters of Four Mile Run; from rivermile 1.46 downstream until the confluence with the Potomac River, at

the state line.

City / County: Alexandria City Arlington Co.

Use(s): Fish Consumption

Cause(s) /

VA Category: Chlordane / 5A

Excursions above the water quality criterion based fish tissue value (TV) of 110 parts per billion (ppb) for total chlordane in fish tissue were recorded in 2 species (carp and channel catfish) of fish (3 total samples) in 2008 at monitoring station

1aFOU000.45.

Four Mile Run Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

Chlordane - Total Impaired Size by Water Type: 0.052

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A12R-01-BEN Pimmit Run

Location: Begins at the Route 309 bridge crossing and continues downstream until the confluence with Little Pimmit Run.

City / County: Fairfax Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

Two biological monitoring events in 2009 and two biological monitoring events in 2011 at station 1aPIM001.89 at Ranleigh Road, resulted in a VSCI score which indicates an impaired macroinvertebrate community.

Pimmit Run

Estuary Reservoir River

Aquatic Life

(Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

2.76

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A12R-03-CDANE Pimmit Run

Location: Begins at the confluence with Little Pimmit Run and continues downstream until the confluence with the Potomac River.

City / County: Arlington Co. Fairfax Co.

Use(s): Fish Consumption

Cause(s) /

VA Category: Chlordane / 5A

2008 Assessment: Excursions above the water quality criterion based tissue value (TV) of 310 ppb for chlordane in fish tissue were recorded in tissue from one species (American eel) of fish sampled in 2001 and 2004 at monitoring station 1aPIM000.15.

Pimmit Run Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

Chlordane - Total Impaired Size by Water Type: 1.64

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A12R-03-HEPOXID Pimmit Run

Location: Begins at the confluence with Little Pimmit Run and continues downstream until the confluence with the Potomac River.

City / County: Arlington Co. Fairfax Co.

Use(s): Fish Consumption

Cause(s) /

VA Category: Heptachlor epoxide / 5A

2010 Assessment: Excursions above the water quality criterion based tissue value (TV) of 4.4 parts per billion (ppb) for heptachlor epoxide in fish tissue were recorded in two species of fish samples (3 total samples); American eel (2004, 2004) and white sucker (2004) at monitoring station 1aPIM000.15.

Pimmit Run Estuary Reservoir River (Sq. Miles) (Acres) (Miles) **Fish Consumption** 1.64

Heptachlor epoxide - Total Impaired Size by Water Type:

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A13R-01-PCB Indian Run

Location: Includes the entire portion of Indian Run, from the headwaters until the confluence with Backlick Run.

City / County: Fairfax Co.
Use(s): Fish Consumption

Cause(s) /

VA Category: PCB in Fish Tissue / 5A

The fish consumption use is categorized as impaired due to a Virginia Department of Health, Division of Health Hazards Control, PCB fish consumption advisory. The advisory, dated 7/27/05, limits consumption of creek chub to no more than two meals per month.

Indian Run

Estuary Reservoir (Niles)

Fish Consumption

PCB in Fish Tissue - Total Impaired Size by Water Type:

3.18

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A13R-03-BEN Holmes Run

Location: Begins at the headwaters of Holmes Run and continues downstream until the start of Lake Barcroft.

City / County: Fairfax Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

One biological monitoring event in 2007, two biological monitoring events in 2008, and two biological monitoring events in 2010 at station 1aHOR005.48, upstream of Route 613, resulted in a VSCI score which indicates an impaired macroinvertebrate community.

Holmes Run Estuary Reservoir River Aquatic Life (Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

6.09

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A13R-04-BEN Tripps Run

Location: Begins at the headwaters of Tripps Run and continues downstream until the start of Lake Barcroft.

City / County: Fairfax Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

One biological monitoring event in 2007, two biological monitoring events in 2008, and two biological monitoring events in 2010 at station 1aTRI001.50, upstream of Route 613, resulted in a VSCI score which indicates an impaired macroinvertebrate community.

Tripps Run

Aquatic Life

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

River (Sq. Miles)

River (Miles)

River (Miles)

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Paul Springs Branch Cause Group Code: A14R-01-BAC

Location: Begins at the headwaters of Paul Spring Branch and continues downstream until the confluence with North Branch.

City / County: Fairfax Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

E. coli bacteria criterion excursions (5 of 12 samples - 41.7%) at station 1aPAU001.17, at Route 626.

Paul Springs Branch Estuary Reservoir River (Sq. Miles) (Acres) (Miles) Recreation

Escherichia coli - Total Impaired Size by Water Type:

3.38

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A14R-01-BEN Paul Springs Branch

Location: Begins at the headwaters of Paul Spring Branch and continues downstream until the confluence with North Branch.

City / County: Fairfax Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

Two biological monitoring events in 2007 at station 1aPAU001.17 (Route 626) resulted in a VSCI score which indicates an impaired macroinvertebrate community.

Paul Springs Branch
Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

3.38

Sources:

Source Unknown



3.38

Potomac and Shenandoah River Basins

Cause Group Code: A14R-01-DO Paul Springs Branch

Location: Begins at the headwaters of Paul Spring Branch and continues downstream until the confluence with North Branch.

City / County: Fairfax Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5A

Excursions below the minimum dissolved oxygen criterion (4 of 24 samples - 16.7%) were recorded at USGS station 01653717, downstream of Sherwood Hall Lane.

Paul Springs Branch
Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type:

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A14R-02-BAC **Dogue Creek**

Location: Begins at the confluence with an unnamed tributary to Dogue Creek, approximately 0.3 rivermiles upstream from Rt. 622,

and continues downstream until the end of the free-flowing waters of Dogue Creek.

City / County: Fairfax Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

E. coli bacteria criterion excursions (6 of 12 samples - 50.0%) at station 1aDOU003.17, at Route 622.

Dogue Creek Estuary Reservoir River (Sq. Miles) (Acres) (Miles) Recreation 1.41

Escherichia coli - Total Impaired Size by Water Type:

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A15E-01-PH Pohick Bay

Location: Segment includes tidal waters of Pohick Creek, from the boundary of watershed A15, and extends until rivermile 1.31 in

Gunston Cove.

Portion of CBP segment POTTF.

City / County: Fairfax Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5A

Sufficient excursions above the upper limit of the pH criterion range at station 1aPOH002.10 at the end of the dock at Pohick Regional Park (110 of 617 observations, 17.8%).

Pohick Bay

Reservoir River

Aquatic Life

(Sq. Miles) (Acres) (Miles)

pH - Total Impaired Size by Water Type: 0.619

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A15L-01-HG Lake Accotink

Location: Includes all of Lake Accotink.

City / County: Fairfax Co.
Use(s): Fish Consumption

Cause(s) /

VA Category: Mercury in Fish Tissue / 5A

Excursions above the water quality criterion based fish tissue value (TV) of 300 parts per billion (ppb) for mercury in fish tissue were recorded in two species of fish (3 total samples): largemouth bass (2007, 2007) and bluegill sunfish (2007) collected at monitoring station 1aACO012.78.

Lake Accotink

Estuary Reservoir River

(Sq. Miles) (Acres) (Miles)

Mercury in Fish Tissue - Total Impaired Size by Water Type: 74.07

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A15L-01-PCB Lake Accotink

Location: Includes all of Lake Accotink.

City / County: Fairfax Co.
Use(s): Fish Consumption

Cause(s) /

VA Category: PCB in Fish Tissue / 5A

Excursions above the water quality criterion based fish tissue value (TV) of 20 parts per billion (ppb) for polychlorinated biphenyls (PCBs) in fish tissue were recorded in two species of fish (3 total samples): carp (2007, 2007) and gizzard shad (2007) collected at monitoring station 1aACO012.78.

Lake AccotinkEstuaryReservoirRiverFish Consumption(Sq. Miles)(Acres)(Miles)

PCB in Fish Tissue - Total Impaired Size by Water Type: 74.07

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A15R-01-BEN Accotink Creek

Location: Begins at the outlet of Lake Accotink and continues downstream until the tidal waters of Accotink Bay.

City / County: Fairfax Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

Two biological monitoring events in 2007, at station 1aACO002.50, at Route 1, two biological monitoring events in 2007 and two biological monitoring events in 2008 at station 1aACO006.10, at Route 790, and two biological monitoring events in 2008, at station 1aACO009.14, at Routes 636 and 286, all resulted in VSCI scores which indicates an impaired macroinvertebrate community.

Accotink Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

10.09

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A15R-01-PCB Accotink Creek

Location: Segment begins at the outlet of Lake Accotink and continues downstream until the tidal waters of Accotink Bay.

City / County: Fairfax Co.
Use(s): Fish Consumption

Cause(s) /

VA Category: PCB in Fish Tissue / 5A

Excursions above the water quality criterion based fish tissue value (TV) of 20 parts per billion (ppb) for polychlorinated biphenyls (PCBs) in fish tissue were recorded in three species of fish (3 total samples): American eel (2004), redbreast sunfish (2004), and rainbow trout (2004) collected at monitoring station 1aACO004.86 (2010 Assessment). Also, excursions for PCBs in fish tissue recorded in one species (American eel) of fish sampled (1 total excursion) at station 1aACO011.62 and in one species (yellow bullhead catfish) of fish sampled (1 total excursion) at station 1aACO012.58, in 2008.

Accotink Creek

Fish Consumption

Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

PCB in Fish Tissue - Total Impaired Size by Water Type:

10.09

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A15R-04-BEN Accotink Creek

Location: Begins at the headwaters of Accotink Creek and continues downstream until the start of Lake Accotink.

City / County: Fairfax City Fairfax Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

EPA biological monitoring events in 2005 and 2006, and two biological monitoring events in 2007 at station 1aACO014.57, at Route 620, resulted in a VSCI score which indicates an impaired macroinvertebrate community.

Accotink Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

11.59

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A15R-05-BEN Long Branch

Location: Begins at the confluence with an unnamed tributary to Long Branch, at the Route 651 (Guinea Road) bridge, and continues

downstream until the confluence with Accotink Creek, just below Braddock Road.

City / County: Fairfax Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

2012 Assessment: Two biological monitoring events in 2006 at station 1aLOE001.99 (downstream from Route 651/Guinea Road) resulted in a VSCI score which indicates an impaired macroinvertebrate community.

Long Branch
Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

2.37

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A16E-01-BZOKFL Pohick Creek

Location: Includes tidal waters of Pohick Creek upstream from the boundary of watershed A16.

City / County: Fairfax Co.
Use(s): Fish Consumption

Cause(s) /

VA Category: Benzo[k]fluoranthene / 5A

2002 Assessment: Excursions above the water quality criterion based tissue value (TV) of 5.5 ppb for benzo(k) fluoranthene in fish tissue (bullhead catfish, white perch, and sunfish) at station 1aPOH003.56 in 1996.

Pohick Creek Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

Benzo[k]fluoranthene - Total Impaired Size by Water Type: 0.292

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A16R-01-BAC Pohick Creek

Location: Begins at the confluence with South Run, approximately 0.25 rivermile upstream from I-95, and continues downstream until

the end of the free-flowing portion of Pohick Creek.

City / County: Fairfax Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

E. coli bacteria criterion excursions (9 of 34 samples - 26.5%) from station 1aPOH005.36, at Route 1.

Pohick Creek

Recreation

Reservoir River
(Sq. Miles)

(Acres)

(Miles)

Escherichia coli - Total Impaired Size by Water Type:

3.78

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A16R-01-BEN Pohick Creek

Location: Begins at the confluence with Middle Run and continues downstream to the confluence with South Run.

City / County: Fairfax Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

Two biological monitoring events in 2011 at station 1aPOH008.54, upstream of Route 641, resulted in a VSCI score which indicates an impaired macroinvertebrate community.

Pohick Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

2.61

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A16R-02-BAC Pohick Creek

Location: Begins at the confluence with Sideburn Branch and continues downstream until the confluence with Middle Run.

City / County: Fairfax Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

E. coli bacteria criterion excursions (4 of 6 samples - 66.7%) from station 1aPOH015.09, at Route 645 (2010 Assessment); and excursions (2 of 11 samples - 18.27%) from station 1aPOH013.12, at Route 644.

Pohick Creek
Recreation

Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type:

7.18

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A18R-02-BEN Lucky Run

Location: Begins at the headwaters of Lucky Run and continues downstream until the confluence with Cedar Run.

City / County: Prince William Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

2008 Assessment: Two biological monitoring events in 2001 at station 1aLUC000.95, off Route 611, resulted in a VSCI score which indicates an impaired macroinvertebrate community.

Lucky Run Estuary Reservoir River Aquatic Life (Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

3.48

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A21R-01-BEN Catharpin Creek

Location: Begins at the Route 601 crossing and continues downstream until the confluence with Little Bull Run.

City / County: Prince William Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

Two biological monitoring events in 2009 at station 1aCAA001.18, at Route 676, resulted in a VSCI score which indicates an impaired macroinvertebrate community.

Catharpin Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

6.80

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A21R-01-PCB Bull Run

Location: Includes Bull Run near Manassas Park from the I-66 bridge downstream approximately fourteen miles to the Route 612

(Yates Ford Road) bridge.

City / County: Fairfax Co. Manassas Park City Prince William Co.

Use(s): Fish Consumption

Cause(s) /

VA Category: PCB in Fish Tissue / 5A

The fish consumption use is categorized as impaired due to a Virginia Department of Health, Division of Health Hazards Control, PCB fish consumption advisory. The advisory, dated 12/13/04 and modified 07/27/05, limits consumption of carp and channel catfish to no more than two meals per month.

Bull Run

Fish Consumption

PCB in Fish Tissue - Total Impaired Size by Water Type:

Estuary (Sq. Miles)

Reservoir (Acres)

(Acres)

River (Miles)

11.53

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A22R-01-BEN Flatlick Branch

Location: Begins at the confluence with Frog Branch and continues downstream until the confluence with Cub Run.

City / County: Fairfax Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

2008 Assessment: Two biological monitoring events in 2001 at station 1aFLL000.62 (downstream of Route 620) resulted in a VSCI score indicating an impaired macroinvertebrate community.

Flatlick Branch
Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

3.22

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A22R-02-BEN Big Rocky Run

Location: Begins at the confluence with an unnamed tributary to Big Rocky Run, at approximately rivermile 4.03, and continues

downstream until the confluence with Cub Run.

City / County: Fairfax Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

Two biological monitoring events in 2007, at station 1aBIR003.02 (Route 657), resulted in a VSCI score which indicates an impaired macroinvertebrate community.

Big Rocky Run

Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

4.34

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A22R-03-BEN Cub Run

Location: Begins at the confluence with Elklick Run and continues downstream until the confluence with Bull Run.

City / County: Fairfax Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

Two biological monitoring events in 2009 and one biological monitoring event in 2010 at station 1aCUB004.63, upstream of Route 28, resulted in a VSCI score which indicates an impaired macroinvertebrate community.

Cub Run Estuary Reservoir River Aquatic Life (Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

6.89

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A22R-04-BEN Elklick Run

Location: Begins at the confluence with an unnamed tributary to Elklick Run, approximately 0.65 rivermile downstream from the Route

620 crossing, and continues downstream until the confluence with Cub Run.

City / County: Fairfax Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

Two biological monitoring events in 2012 at station 1aELC001.39, at Route 609, resulted in a VSCI score which indicates an impaired macroinvertebrate community.

Elklick Run

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

2.27

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A23R-03-BEN Little Rocky Run

Location: Begins at the confluence with Willow Springs and continues downstream until the confluence with Bull Run.

City / County: Fairfax Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

Two biological monitoring events in 2007, at station 1aLIP001.00, at Route 658 (Compton Road), resulted in a VSCI score which indicates an impaired macroinvertebrate community.

Little Rocky Run

Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

5.23

Sources:

Source Unknown



2.50

Potomac and Shenandoah River Basins

Cause Group Code: A24R-01-BAC Wolf Run

Location: Begins at the confluence with Maple Branch and continues downstream until the end of the free-flowing waters at the

inundated waters of the Occoquan Reservoir.

City / County: Fairfax Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

E. coli bacteria criterion excursions (5 of 33 samples - 15.2%) from station 1aWOL001.26, at Route 643.

Wolf Run Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type:

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A24R-02-BAC Sandy Run

Location: Begins at the headwaters of Sandy Run and continues downstream until the end of the free-flowing waters at the inundated

waters of the Occoquan Reservoir.

City / County: Fairfax Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

E. coli bacteria criterion excursions (3 of 11 samples - 27.3%) from station 1aSAD001.76, at Cathedral Forest Drive.

Sandy Run Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type:

6.08

Sources:

Source Unknown



0.98

Potomac and Shenandoah River Basins

Cause Group Code: A24R-03-BAC Hooes Run

Location: Begins at the outlet from Lake Omiscol and continues downstream until the beginning of the inundated waters of the

Occoquan Reservoir.

City / County: Prince William Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

E. coli bacteria criterion excursions (6 of 19 samples - 31.6%) from station 1aHOO000.34, at Route 641 (Old Bridge Road).

Hooes Run Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type:

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A25E-02-BAC Neabsco Creek

Location: Includes the tidal waters of Neabsco Bay downstream until the confluence with Occoquan Bay.

City / County: Prince William Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

E. coli bacteria criterion excursions (6 of 50 samples - 12.0%) from station 1aNEA000.57.

Neabsco CreekEstuaryReservoirRiverRecreation(Sq. Miles)(Acres)(Miles)

Escherichia coli - Total Impaired Size by Water Type: 0.545

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A25E-03-BAC Occoquan River

Location: Extends from the end of the free-flowing waters to 0.5 rivermile downstream of monitoring station 1aOCC006.64.

City / County: Fairfax Co. Prince William Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

E. coli bacteria criterion excursions (2 of 17 samples - 11.7%) combined from stations 1aOCC006.47, upstream of the Occoquan Regional Park boat ramp, and 1aOCC006.71, at the Route 123 (Gordon Boulevard).

2000quarr regionarr and soutramp, and race 2000.71, at the reduce 125 (Condon Soutevara).

Occoquan River

Recreation

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type: 0.073

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A25E-04-BAC Marumsco Creek

Location: Includes all the tidal waters of Marumsco Creek from the end of the free-flowing stream to the open Occoquan Bay.

City / County: Prince William Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

E. coli bacteria criterion excursions (5 of 22 samples - 22.7%) from station 1aSAD001.76, at Cathedral Forest Drive.

Marumsco Creek

Reservoir River
(Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type: 0.025

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A25E-04-EBEN Occoquan River

Location: Extends 0.5 mile around Coastal 2000 monitoring station 1aOCC002.62.

City / County: Fairfax Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Estuarine Bioassessments / 5A

2008 Assessment: Coastal 2000 weight of evidence analysis, utilizing bulk chemical data, toxicity test data, and an evaluation of benthic community conditions, resulted in an impaired determination for the aquatic life use. Results from the estuarine bioassessment, from station 1aOCC002.62, were the primary factor for this determination.

Occoquan River

Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

Estuarine Bioassessments - Total Impaired Size by Water Type: 0.286

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A25R-01-BEN Giles Run

Location: Begins at the headwaters of Giles Run and continues downstream until the end of the free-flowing waters of Giles Run, at

Massey Creek.

City / County: Fairfax Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

Two biological monitoring events in 2010 at station 1aGIL003.10, at Route 642 (Lorton Road), resulted in a VSCI score which indicates an impaired macroinvertebrate community.

Giles Run

Estuary Reservoir River

Aquatic Life

(Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

6.48

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A25R-02-BAC Mills Branch

Location: Begins at the headwaters of Mills Branch and continues downstream until the confluence with the Occoquan River.

City / County: Fairfax Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

E. coli bacteria criterion excursions (2 of 11 samples - 18.2%) from station 1aWLB000.06, at Occoquan Regional Park.

Mills BranchEstuaryReservoirRiverRecreation(Sq. Miles)(Acres)(Miles)

Escherichia coli - Total Impaired Size by Water Type:

1.72

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A25R-03-BAC Giles Run

Location: Begins at the headwaters of Giles Run and continues downstream until the end of the free-flowing waters of Giles Run, at

Massey Creek.

City / County: Fairfax Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

E. coli bacteria criterion excursions (2 of 12 samples - 16.7%) from station 1aGIL000.85, at Route 1 (Jefferson Davis Highway).

Giles Run

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type:

6.48

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A25R-04-BAC Marumsco Creek

Location: Begins at the confluence with an unnamed tributary to Marumsco Creek, just upstream from Easy Street, and continues

downstream until the end of the free-flowing waters.

City / County: Prince William Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

E. coli bacteria criterion excursions (5 of 10 samples - 50.0%) from station 1aMAU001.67, at Route 1 (Jefferson Davis

Highway).

Marumsco Creek

Reservoir River
(Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type:

0.53

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A26E-01-BZOKFL Powells Creek

Location: Extends to a 0.5 mile radius around the ACB station 1aPOW-765-ALL.

City / County: Prince William Co.

Use(s): Fish Consumption

Cause(s) /

VA Category: Benzo[k]fluoranthene / 5A

2002 Assessment: Excursions above the water quality criterion based tissue value (TV) of 5.5 ppb for benzo(k) fluoranthene in fish tissue (largemouth bass and sunfish) at station 1aPOW001.20 in 1996.

Powells Creek

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Benzo[k]fluoranthene - Total Impaired Size by Water Type: 0.402

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A26E-03-EBEN Quantico Creek

Location: Extends to a 0.5-mile radius around station 1aQUA001.09.

City / County: Prince William Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Estuarine Bioassessments / 5A

2008 Assessment: Impairment based on the Coastal 2000 weight of evidence analysis in 2001 at station 1aQUA001.09, utilizing bulk chemical data, toxicity test data, and an evaluation of benthic community conditions. Conclusions noted that organic enrichment, as well as chemical contamination, may be responsible for the impairment. The survey revealed low diversity of benthic faunal taxa.

Quantico CreekEstuaryReservoirRiverAquatic Life(Sq. Miles)(Acres)(Miles)

Estuarine Bioassessments - Total Impaired Size by Water Type: 0.419

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A26E-03-EBTOX Quantico Creek

Location: Extends to a 0.5-mile radius around station 1aQUA001.09.

City / County: Prince William Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Sediment Bioassays for Estuarine and Marine Water / 5A

2008 Assessment: Impairment based on the Coastal 2000 weight of evidence analysis in 2001 at station 1aQUA001.09, utilizing bulk chemical data, toxicity test data, and an evaluation of benthic community conditions. Conclusions noted that organic enrichment, as well as chemical contamination, may be responsible for the impairment. The acute bioassay revealed slight, yet significant, toxicity.

Quantico CreekEstuaryReservoirRiverAquatic Life(Sq. Miles)(Acres)(Miles)

Sediment Bioassays for Estuarine and Marine Water - Total Impaired Size by Water Type: 0.419

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A26L-01-HG Lake Montclair

Location: Includes all of Lake Montclair.

City / County: Prince William Co.

Use(s): Fish Consumption

Cause(s) /

VA Category: Mercury in Fish Tissue / 5A

2012 Assessment: Excursions above the water quality criterion based fish tissue value (TV) of 300 parts per billion (ppb) for mercury in fish tissue were recorded in three species of fish (9 total samples): largemouth bass (2006), channel catfish (2006) and black crappie (2006) collected at monitoring station 1aPOW009.08.

Lake Montclair

Fish Consumption

Estuary (Sq. Miles)

(Sq. Miles)

Reservoir (Miles)

(Acres) (Miles)

Mercury in Fish Tissue - Total Impaired Size by Water Type: 103.54

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A26R-02-PH Unnamed tributary to Potomac River

Location: Begins at the headwaters of the unnamed tributary and continues downstream until its confluence with the Potomac River

City / County: Stafford Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5A

Excursions below the lower limit of the pH criterion range (5 of 23 samples - 21.7%) at station 1aXLF000.13, at Route 633 (Arkendale Road).

Unnamed tributary to Potomac River

Aquatic Life

Estuary (Sq. Miles)

Reservoir (Acres)

River (Miles)

pH - Total Impaired Size by Water Type:

3.67

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A27R-01-DO Unnamed tributary to Aquia Creek

Location: Begins at the headwaters of the unnamed tributary and continues downstream until its confluence with Aguia Creek.

City / County: Stafford Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5A

Excursions below the minimum dissolved oxygen criterion (4 of 16 samples - 25.0%) at station 1aXLN-SCVDOT-ALL.

Unnamed tributary to Aquia Creek

Aquatic Life

Estuary (Sq. Miles) Reservoir (Miles)

(Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type:

2.25

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A27R-02-BAC Aquia Creek

Location: Begins at the headwaters of Aquia Creek and continues downstream until the confluence with Cannon Creek,

approximately 0.1 rivermile downstream from Route 610.

City / County: Fauquier Co. Stafford Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

E. coli bacteria criterion excursions (2 of 10 samples - 20.0%) from station 1aAUA023.09, at Route 644.

Aquia Creek

Recreation

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type:

8.81

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A29E-01-PH Potomac Creek

Location: Segment extends from rivermile 1.91 until rivermile 1.09 along Potomac Creek and includes the lower portion of the

Accokeek Creek arm of Potomac Creek, approximately 0.35 rivermile upstream.

City / County: King George Co. Stafford Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5A

Sufficient excursions above the upper limit of the pH criterion range were recorded at the continuous monitoring station 1aPOM-000.97-VIMS (69 of 606 observations, 11.4%).

Potomac Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

pH - Total Impaired Size by Water Type: 0.587

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A29E-02-BAC Fairview Beach (Potomac River)

Location: Includes all of Fairview Beach on the Potomac River.

City / County: King George Co.

Use(s): Recreation

Cause(s) /

VA Category: Enterococcus / 5A

Sufficient excursions from the geometric mean enterococci criterion (16 of 21 samples) were recorded at the Virginia Department of Health station (VA351214) at Fairview Beach. VDH issued a total of 29 new and/or continued public beach closure advisories for Fairview Beach from 2007 to 2012. These advisories were based on the results of enterococci bacteria sampling at station VA351214 at Fairview Beach.

Fairview Beach (Potomac River)

Recreation

Estuary (Sq. Miles)

Reservoir (Acres)

River (Miles)

Enterococcus - Total Impaired Size by Water Type: 0.005

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A29E-03-BAC Chotank Creek

Location: Includes the tidal portion of Chotank Creek, from its headwaters until the fire road crossing inside of Caledon State Park.

City / County: King George Co.

Use(s): Recreation

Cause(s) /

VA Category: Enterococcus / 5A

Enterococci bacteria criterion excursions (3 of 19 samples - 15.8%) at station (1aCHN002.97) at the fire road in Caledon State

Park.

Chotank Creek

Recreation

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Enterococcus - Total Impaired Size by Water Type: 0.054

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A29R-03-DO Potomac Run

Location: Begins at the headwaters of Potomac Run and continues downstream until the confluence with Long Branch.

City / County: Stafford Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5A

Excursions below the minimum dissolved oxygen criterion (2 of 18 samples - 11.1%) were recorded at station 1aPOR000.40, at

Route 648.

Potomac Run Estuary Reservoir River Aquatic Life (Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type:

6.59

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A30R-01-DO Pepper Mill Creek

Location: Begins at the headwaters of Pepper Mill Creek and continues downstream until its confluence with Upper Machodoc Creek.

City / County: King George Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

Excursions below the minimum dissolved oxygen criterion (2 of 14 samples - 14.3%) at station 1aPEP001.58, at Route 206.

Pepper Mill Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type:

8.66

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



Potomac and Shenandoah River Basins

Cause Group Code: A30R-01-PH Pepper Mill Creek

Location: Begins at the headwaters of Pepper Mill Creek and continues downstream until its confluence with Upper Machodoc Creek.

City / County: King George Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5C

Excursions below the lower limit of the pH criterion range (3 of 14 samples - 21.4%) at station 1aPEP001.58, at Route 206.

Pepper Mill Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

pH - Total Impaired Size by Water Type:

8.66

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



Potomac and Shenandoah River Basins

Cause Group Code: A31E-01-BAC Rosier Creek

Location: The portion of VDH Shellfish Condemnation 001-088A 9/13/2012 which was not included in the Rosier Creek Shellfish

TMDL

City / County: Westmoreland Co.

Use(s): Recreation

Cause(s) /

VA Category: Enterococcus / 5A

During the 2010 cycle, the portion of Rosier Creek around station 1AROS001.05, which is located off of the Route 205 boat ramp, was assessed as impaired of the Recreation Use due to an enterococci violation rate of 3/12.

Rosier Creek Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

Enterococcus - Total Impaired Size by Water Type: 0.105

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A31E-11-BAC Bridges Creek

Location: The tidal portion of Bridges Creek

City / County: Westmoreland Co.

Use(s): Recreation

Cause(s) /

VA Category: Enterococcus / 5A

Bridges Creek was assessed as not supporting of the Recreation Use support goal during the 2004 cycle based on a fecal coliform violation rate of 2/2 at 01660860, a USGS station located near the mouth of Bridges Creek. The impairment converted to Enterococci during the 2012 cycle based on a violation rate of 16/23 at 1ABRG000.15.

Bridges Creek

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Enterococcus - Total Impaired Size by Water Type: 0.182

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A32R-01-DO Thompson Branch

Location: Thompson Branch from its headwaters to the tidal limit.

City / County: Westmoreland Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

Thompson Branch was initially assessed as not supporting the Aquatic Life Use during the 2006 cycle based on dissolved oxygen exceedances at Route 626 (1ATHP001.15), as well as DO exceedances at special study stations in the creek (1/1).

During the 2014 cycle, the segment remains impaired with a DO violation rate of 2/12.

Thompson Branch
Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type:

1.60

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



Potomac and Shenandoah River Basins

Cause Group Code: A32R-01-PH Thompson Branch

Location: Thompson Branch from its headwaters to the tidal limit.

City / County: Westmoreland Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5C

Thompson Branch was initially assessed as not supporting the Aquatic Life Use during the 2006 cycle based on pH exceedances at Route 626 (1ATHP001.15), as well as pH exceedances at special study stations in the creek (1/1).

During the 2014 cycle, the segment remains impaired with a pH violation rate of 10/12.

Thompson Branch

Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

pH - Total Impaired Size by Water Type:

1.60

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



Potomac and Shenandoah River Basins

Cause Group Code: A32R-02-DO Lee Creek

Location: Lee Creek from its headwaters to the tidal limit.

City / County: Westmoreland Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

During the 2010 cycle, Lee Creek was assessed as impaired of the Aquatic Life Use due to dissolved oxygen exceedances at 1ALEC001.18, which is located at the Rt. 675 bridge. The violation rate was 4/13 during the 2012 cycle.

Lee Creek
Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type:

1.35

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



Potomac and Shenandoah River Basins

Cause Group Code: A32R-03-PH XLK - Nomini Creek, UT

Location: The unnamed tributary in its entirety.

City / County: Westmoreland Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5C

During the 2010 cycle, the stream was assessed as not supporting the Aquatic Life Use due to a pH exceedance rate of 2/2 at probabilistic monitoring station 1AXLK000.04.

XLK - Nomini Creek, UT

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

pH - Total Impaired Size by Water Type: 1.45

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



Potomac and Shenandoah River Basins

Cause Group Code: A32R-05-PH Tavern Run

Location: Tavern Run from its headwaters to the confluence with Newtons Mill Run.

City / County: Westmoreland Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5C

During the 2012 cycle, Tavern Run was impaired of the Aquatic Life Use due to pH violations at 1ATAE002.50, which is located at the Route 615 bridge.

Additional monitoring occurred in the 2014 cycle; the impairment was confirmed with exceedance rates of 3/24 at 1ATAE002.50 and 3/12 at 1ATAE003.85.

Tavern Run

Aquatic Life

Estuary (Sq. Miles)

Reservoir (Miles)

PH - Total Impaired Size by Water Type:

3.27

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



Potomac and Shenandoah River Basins

Cause Group Code: A32R-06-PH Nontidal Nomini Creek Tributaries

Location: Multiple tributaries throughout the upper Nomini Creek watershed - including Nomini Creek, Marshall Creek, Buena Vista

Branch, Oldham Creek, Newtons Mill Run, Antioch Branch, Templeman Run.

City / County: Westmoreland Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5C

During the 2014 cycle, monitoring occurred throughout the upper Nomini Creek watershed. Multiple tributaries indicated low

pH.

4/5 at 1AANT001.31

3/12 at 1ABUV000.15

2/12 at 1AMAR000.62

2/12 at 1ANET001.77

2/12 at 1AOLD000.70

3/12 at 1ATEM003.54

2/12 at 1ANOM012.38

Note; Nomini Creek, UT (XLK) and Tavern Run were already listed for pH (see A32R-03-PH and A32R-05-PH).

Nontidal Nomini Creek Tributaries

Aquatic Life

Estuary (Sq. Miles)

Reservoir (Acres)

River (Miles)

pH - Total Impaired Size by Water Type:

19.73

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



Potomac and Shenandoah River Basins

Cause Group Code: A32R-07-DO Marshall Creek

Location: Marshall Creek from its headwaters to its mouth at Templeman Run.

City / County: Westmoreland Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

During the 2014 cycle, Marshall Creek was impaired of the Aquatic Life Use due to a dissolved oxygen exceedance rate of 2/12 at 1AMAR000.62, which is located at the Route 600 bridge.

Marshall Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type:

2.88

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



Potomac and Shenandoah River Basins

Cause Group Code: A32R-08-DO Barnes Creek

Location: The nontidal portion of Barnes Creek.

City / County: Westmoreland Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

During the 2014 cycle, Barnes Creek was impaired of the Aquatic Life Use due to a dissolved oxygen exceedance rate of 3/12 at 1ABAN001.34, which is located at Route 649.

Barnes Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type:

1.94

Sources:

Dam or Impoundment Natural Conditions - Water

Quality Standards Use Attainability Analyses

Needed



Potomac and Shenandoah River Basins

Cause Group Code: A32R-08-PH Barnes Creek

Location: The nontidal portion of Barnes Creek.

City / County: Westmoreland Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5C

During the 2014 cycle, Barnes Creek was impaired of the Aquatic Life Use due to a pH exceedance rate of 5/12 at 1ABAN001.34, which is located at Route 649.

Barnes Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

pH - Total Impaired Size by Water Type:

1.94

Sources:

Dam or Impoundment Natural Conditions - Water

Quality Standards Use Attainability Analyses

Needed



Potomac and Shenandoah River Basins

Cause Group Code: A32R-09-DO Mount Pleasant Creek

Location: The nontidal portion of Mount Pleasant Creek.

City / County: Westmoreland Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

During the 2014 cycle, Mount Pleasant Creek was impaired of the Aquatic Life Use due to a dissolved oxygen exceedance rate of 2/11 at 1AMBP001.00, which is located at Route 612.

Mount Pleasant Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type:

2.26

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



Potomac and Shenandoah River Basins

Cause Group Code: A32R-09-PH Mount Pleasant Creek

Location: The nontidal portion of Mount Pleasant Creek.

City / County: Westmoreland Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5C

During the 2014 cycle, Mount Pleasant Creek was impaired of the Aquatic Life Use due to a pH exceedance rate of 3/11 at 1AMBP001.00, which is located at Route 612.

Mount Pleasant Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

pH - Total Impaired Size by Water Type:

2.26

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



Potomac and Shenandoah River Basins

Cause Group Code: A33E-04-BAC Lodge Creek

Location: Lodge Creek from its tidal limit to the downstream extent of VDH-DSS condemnation 007-028F, 5/12/1997

City / County: Northumberland Co.

Use(s): Recreation

Cause(s) /

VA Category: Enterococcus / 5A

Lodge Creek from its tidal limit downstream to the end of VDH-DSS condemnation 007-028F, 7/21/2004 has been assessed as not supporting the Recreation Use due to enterococci exceedances at 1ALOG001.20, which is located at the end of Route 712. The segment was expanded during the 2008 cycle to align the boundary with the 5/12/1997 impairment. During the 2014 cycle the violation rate was 4/35.

The bacteria TMDL for shellfish impairments in the Yeocomico River watershed was completed during the 2008 cycle and was approved by the EPA on 6/8/2006. Section 028F was addressed in the report. Although the recreation impairment was not specifically addressed, the Recreation impairment was considered nested (Category 4A) during the 2012 cycle. It was moved back to Category 5A during the 2014 cycle because the Callao WWTP was not addressed in the TMDL and it is therefore inappropriate to nest the bacterial impairment.

Lodge CreekEstuaryReservoirRiverRecreation(Sq. Miles)(Acres)(Miles)

Enterococcus - Total Impaired Size by Water Type: 0.301

Sources:

Non-Point Source Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A33L-01-TEMP Hampton Hall, Grady Millpond

Location: Hampton Hall, Grady Millpond

City / County: Northumberland Co. Westmoreland Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Temperature, water / 5C

In 2014 cycle Grady Millpond was impaired for temperature with a violation rate of 13/69.

Hampton Hall, Grady Millpond

Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

Temperature, water - Total Impaired Size by Water Type: 45.86

Sources:

Natural Sources



Potomac and Shenandoah River Basins

Cause Group Code: A33R-02-BAC Lodge Creek

Location: The free flowing portion of Lodge Creek.

City / County: Northumberland Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

During the 2010 cycle, Lodge Creek was assessed as not supporting of the Recreation Use due to an E. coli exceedance rate of 3/21 at 1ALOG003.30, which is located at the Route 360 bridge. Monitoring at station 1ALOG003.45 was acceptable (0/3).

Lodge CreekEstuaryReservoirRiverRecreation(Sq. Miles)(Acres)(Miles)

Escherichia coli - Total Impaired Size by Water Type:

3.44

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A33R-02-DO **Lodge Creek**

Location: The free flowing portion of Lodge Creek.

City / County: Northumberland Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

During the 2010 cycle, Lodge Creek was assessed as not supporting of the Aquatic Life Use due to dissolved oxygen violations at 1ALOG003.30, which is located at the Route 360 bridge. The exceedance rate was 5/22 during the 2014 cycle. Monitoring at station 1ALOG003.45 was acceptable (0/3).

Lodge Creek Estuary Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life** 3.44

Oxygen, Dissolved - Total Impaired Size by Water Type:

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Non-Point Source



1.40

Potomac and Shenandoah River Basins

Cause Group Code: A33R-03-DO Gardner Creek

Location: The free flowing portion of Gardner Creek.

City / County: Northumberland Co. Westmoreland Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

During the 2010 cycle, Gardner Creek was assessed as not supporting of the Aquatic Life Use due to dissolved oxygen violations at 1AGAD001.73, which is located at 3352 Coles Point Road. During the 2012 cycle, the violation rate was 4/11 at 1AGAD001.73. In addition, the violation rate was 2/7 at 1AGAD002.54.

Gardner Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type:

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



Potomac and Shenandoah River Basins

Cause Group Code: A33R-03-PH Gardner Creek

Location: The free flowing portion of Gardner Creek.

City / County: Northumberland Co. Westmoreland Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5C

During the 2010 cycle, Gardner Creek was assessed as not supporting of the Aquatic Life Use due to a pH violation rate of 5/5 at 1AGAD001.73, which is located at 3352 Coles Point Road as well as a pH violation rate of 1/1 at 1AGAD002.54, which is located at the Route 612 bridge. During the 2012 cycle, the violation rates increased to 11/11 and 7/7, respectively.

Gardner Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

pH - Total Impaired Size by Water Type:

1.40

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Final 2014



Potomac and Shenandoah River Basins

Cause Group Code: A33R-04-DO XMB - Hampton Hall Creek, UT

Location: Headwaters to the backwater of Gardys Millpond.

City / County: Northumberland Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

During the 2014 cycle, UT XMB was impaired of the Aquatic Life Use due to a dissolved oxygen exceedance rate of 2/12 at 1AXMB000.88, which is located at Route 618.

XMB - Hampton Hall Creek, UT

Aquatic Life

Estuary (Sq. Miles) Reservoir (Acres)

River (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type:

3.48

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



Potomac and Shenandoah River Basins

Cause Group Code: A33R-04-PH XMB - Hampton Hall Creek, UT

Location: Headwaters to the backwater of Gardys Millpond.

City / County: Northumberland Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5C

During the 2014 cycle, UT XMB was impaired of the Aquatic Life Use due to a pH exceedance rate of 2/12 at 1AXMB000.88, which is located at Route 618.

XMB - Hampton Hall Creek, UT

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

pH - Total Impaired Size by Water Type:

3.48

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



Potomac and Shenandoah River Basins

Cause Group Code: A33R-05-PH XLZ - Hampton Hall Creek, UT

Location: Headwaters to the backwater of Gardys Millpond.

City / County: Westmoreland Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5C

During the 2014 cycle, UT XLZ was impaired of the Aquatic Life Use due to a pH exceedance rate of 2/12 at 1AXLZ002.04, which is located at Route 601.

XLZ - Hampton Hall Creek, UT

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

pH - Total Impaired Size by Water Type:

3.13

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



Potomac and Shenandoah River Basins

Cause Group Code: A33R-07-BAC XMC - Lodge Creek, UT

Location: Headwaters to mouth at Lodge Creek.

City / County: Northumberland Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

During the 2010 cycle, UT XMC was assessed as not supporting of the Recreation Use due to an E. coli exceedance rate of 3/12 at 1AXMC000.92, which is located at the Route 768 bridge.

XMC - Lodge Creek, UT

Recreation

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type:

1.69

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: A34R-02-PH **Little Wicomico River**

Location: The nontidal portion of Little Wicomico River.

City / County: Northumberland Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5C

The nontidal portion of Little Wicomico River was initially considered not supporting the Aquatic Life Use during the 2006 cycle due to a pH exceedance rate of 2/11 at 1ALIS007.20, located at the Route 646 bridge. During the 2008 cycle, the exceedance rate increased to 3/13. No additional data has been collected.

Little Wicomico River Estuary Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life** pH - Total Impaired Size by Water Type: 2.33

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



Potomac and Shenandoah River Basins

Cause Group Code: A34R-03-DO Coan Mill Stream, UT

Location: The unnamed tributary in its entirety.

City / County: Northumberland Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

During the 2010 cycle, the tributary was assessed as not supporting of the Aquatic Life Use due to dissolved oxygen violations at 1AXLL000.92, which is located west of Route 301. The exceedance rate was 2/12 during the 2012 cycle.

Coan Mill Stream, UT

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type:

2.10

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



Potomac and Shenandoah River Basins

Cause Group Code: B02R-01-BAC **West Strait Creek**

Location: West Strait Creek from the headwaters downstream to the Monterey STP discharge. (Start Mile: 4.85 End Mile: 3.97 Total

Impaired Size: .88 miles)

City / County: Highland Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

This segment is impaired due to violations of the e-coli bacteria WQS at station 1AWSC003.79 (2 violations of 6 samples for e-

coli). Initial Listing Date: 2010

West Strait Creek Estuary Reservoir River (Sq. Miles) (Acres) (Miles) Recreation

Escherichia coli - Total Impaired Size by Water Type:

0.87

Sources:

Agriculture Non-Point Source **Unspecified Domestic** Wildlife Other than Waste

Waterfowl



Potomac and Shenandoah River Basins

Cause Group Code: B02R-06-BAC Strait Creek

Location: Strait Creek from the headwaters downstream to its confluence with the South Branch Potomac River. (Start Mile: 6.08 End

Mile: 0.00 Total Impaired Size: 6.08 Miles)

City / County: Highland Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

This segment is impaired due to violations of the violations of the e-coli bacteria WQS at stations 1ASTT000.02 (0 violations of 6 samples for e-coli; no new data in 2014) and 1ASTT004.26 (2 violations of 6 samples for e-coli). Initial Listing Date: 2006

Strait Creek Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type: 6.06

Sources:

Agriculture Non-Point Source



Potomac and Shenandoah River Basins

Cause Group Code: B03R-03-BAC South Fork South Branch Potomac River

Location: South Fork South Branch Potomac River from the headwaters downstream to the VA/WVA State Line. (Start Mile: 2.71 End

Mile: 0.00 Total Impaired Size: 2.71 Miles

City / County: Highland Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

This segment is impaired due to violations of the e-coli bacteria WQS at station: 1ASFP02.56 (2 violations of 12 samples for e-

coli). Initial Listing Date: 2012.

South Fork South Branch Potomac River

Estuary Reservoir River (Sq. Miles) (Acres) (Miles) Recreation

> Escherichia coli - Total Impaired Size by Water Type: 2.71

Sources:

Agriculture Non-Point Source Wildlife Other than

Waterfowl



Potomac and Shenandoah River Basins

Cause Group Code: B04R-01-BAC Middle Fork Sleepy Creek

Location: Middle Fork Sleepy Creek from the headwaters downstream to the VA/WVA state line. (Start Mile: 2.93 End Mile: 0.00

Total Impaired Size: 2.93 Miles)

City / County: Frederick Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

This segment is impaired due to violations of the e-coli WQS at station: 1AMIS000.33 (3 violations of 11 samples for e-coli).

Initial Listing Date: 2014

Middle Fork Sleepy Creek

Recreation

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type: 2.93

Sources:

Agriculture Non-Point Source Wildlife Other than

Waterfowl



Potomac and Shenandoah River Basins

Cause Group Code: B05R-01-BAC Back Creek

Location: Back Creek from the headwaters downstream to its confluence with Isaacs Creek. (Start Mile: 25.34 End Mile: 7.73 Total

Impaired Size: 17.61 Miles)

City / County: Frederick Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

This segment is impaired due to violations of the e-coli bacteria WQS at station: 1ABAR041.11 (2 violations of 12 samples for e-

coli). Initial Listing Date: 2010.

Back Creek

Estuary Reservoir River

(Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type: 17.61

Sources:

Non-Point Source Wildlife Other than

Waterfowl



Potomac and Shenandoah River Basins

Cause Group Code: B05R-02-BAC Little Isaacs Creek

Location: Little Isaacs Creek from the Timber Ridge School STP downstream (including an unnamed tributary originating near

Reynolds Store) to its confluence with Isaacs Creek. (Start Mile: 9.93 End Mile: 0.00 Total Impaired Size: 9.93 Miles)

City / County: Frederick Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

This segment is impaired due to violations of the e-coli bacteria WQS at station 1ALIG001.84 (No new data in 2014, last data available was 2012). Initial Listing Date: 2008

Little Isaacs Creek Estuary Reservoir River

Escherichia coli - Total Impaired Size by Water Type: 9.93

(Sq. Miles)

(Acres)

(Miles)

Sources:

Recreation

Agriculture Non-Point Source



Potomac and Shenandoah River Basins

Cause Group Code: B07R-01-BAC Babbs Run

Location: Babbs Run from the headwaters downstream to its confluence with Back Creek. (Start Mile: 11.83 End Mile: 0.00 Total

Impaired Size: 11.83 Miles)

City / County: Frederick Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A Fecal Coliform / 5A

The segment remains impaired based on violations of the e-coli bacteria WQS at station 1ABAB004.54 (2 violations of 12 samples for e-coli). Initial Listing Date: 2004

Babbs Run Recreation	Estu (Sq. M	,	Reservoir (Acres)	River (Miles)
	Escherichia coli - Total Impaired Size by Water Type:			11.83
Babbs Run	Estu	ary	Reservoir	River
Recreation	(Sq. N	(liles	(Acres)	(Miles)
	Fecal Coliform - Total Impaired Size by Water Type:			11.83

Sources:

Source Unknown

Final 2014



Potomac and Shenandoah River Basins

Cause Group Code: B12R-01-PCB Lewis Creek

Location: Lewis Creek south of the Staunton City boundary near the power line crossing downstream to its confluence with Middle

River. (Start Mile: 10.06 End Mile: 0.00 Total Impaired Size: 10.06 Miles)

City / County: Augusta Co. Staunton City

Use(s): Fish Consumption

Cause(s) /

VA Category: PCB in Fish Tissue / 5A

This segment is impaired due to violations of Fish Tissue and Sediment screening values at stations: 1BLEW005.24 (01 Hg, HMW PAH, PHH, FTH, Pry, ATH Ben, Chrys, Chl 01 Fish PCB 2 sp 2005 Fish PCB) and 1BLEW006.64 (1 samples exceeded the PEC of 128 for Lead (172)) Data outside of data window, however, status carried forward. Initial Listing Date: 2004.

Lewis CreekEstuaryReservoirRiverFish Consumption(Sq. Miles)(Acres)(Miles)

PCB in Fish Tissue - Total Impaired Size by Water Type: 10.06

Sources:

Inappropriate Waste Municipal (Urbanized High

Disposal Density Area)



Potomac and Shenandoah River Basins

Cause Group Code: B12R-02-BEN Middle River

Location: Middle River from its confluence with Moffett Creek downstream to its confluence with Christians Creek. (Start Mile: 41.00

End Mile: 17.84 Total Impaired Size: 23.16 Miles)

City / County: Augusta Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

This segment in impaired due to a violation of the General Standard for Benthics at station: 1BMDL026.58 (Impaired for VSCI).

Initial Listing Date: 2010

Middle River

Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type: 23.15

Sources:

Agriculture Non-Point Source



Potomac and Shenandoah River Basins

Cause Group Code: B14R-03-TEMP Long Meadow Run

Location: Long Meadow Run and tributary from the headwaters downstream to its confluence with Christians Creek. (Start Mile: 11.06

End Mile: 0.00 Total Impaired Size: 11.06 Miles)

City / County: Augusta Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Temperature, water / 5C

This segment is impaired due to violations of the natural trout temperature WQS (20 C) at station: 1BMDW000.18 (4 violations of 12 samples for temperature). Initial Listing Date: 2006. The aquatic life use is impaired due to violations of the temperature standard and is Category 5C due to suspected natural conditions.

Long Meadow Run

Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

Temperature, water - Total Impaired Size by Water Type:

11.06

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: B16L-01-TEMP Elkhorn Lake

Location: Elkhorn Lake (Total Impaired Size: 50.7 Acres)

City / County: Augusta Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Temperature, water / 5A

This lake is impaired due to violations of the temperature WQS at station: 1BNTH045.36 (27 violations of 139 samples for temperature). Initial Listing Date: 2010.

Elkhorn Lake

Estuary Reservoir River
Aquatic Life

(Sq. Miles) (Acres) (Miles)

Temperature, water - Total Impaired Size by Water Type: 50.70

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: B16R-01-PH North River

Location: North River from its confluence with Little River downstream to its confluence with Freemason Run. This impairment length was shortened in 2010 due to upstream stations returning to fully supporting status. Original length was 21.80 Miles. (Start

Mile: 36.42 End Mile: 31.96 Total Impaired Size: 4.46 Miles)

City / County: Augusta Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5A

This segment remains impaired due to violations of the pH WQS at station: 1BNTH036.96 (1 violations of 3 samples for pH 3 of 9 in 2010, no new data in 2014). Initial Listing Date: 2002

North River

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

pH - Total Impaired Size by Water Type:

4.46

Sources:

Atmospheric Deposition - Acidity

Final 2014



Potomac and Shenandoah River Basins

Cause Group Code: B18R-01-BEN Wolf Run

Location: Wolf Run from the headwaters downstream to its confluence with Briery Branch. (Start Mile: 3.31 End Mile: 0.00 Total

Impaired Size: 3.31 Miles)

City / County: Augusta Co. Rockingham Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

This segment is impaired due to violations of the General Standard for Benthics at stations: USFS 2019 and USFS 2042. No new data available for the 2014 assessment window, this impairment carries over to this cycle. Initial Listing Date: 2002.

Wolf Run Estuary Reservoir River Aquatic Life (Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type: 3.29

Sources:

Atmospheric Deposition - Acidity



Potomac and Shenandoah River Basins

Cause Group Code: B18R-01-PH Wolf Run

Location: Wolf Run from the headwaters downstream to its confluence with Briery Branch. (Start Mile: 3.31 End Mile: 0.00 Total

Impaired Size: 3.31 Miles)

City / County: Augusta Co. Rockingham Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5A

This segment is impaired due to violations of the pH WQS at station: UVA VT56 (12 violations of 12 samples for pH in 2010, no new data available for 2014. Impairment carries forward.). Initial Listing Date: 2006.

Wolf Run

Aquatic Life

Estuary (Sq. Miles) Reservoir (Miles)

PH - Total Impaired Size by Water Type:

3.29

Sources:

Atmospheric Deposition - Acidity



Potomac and Shenandoah River Basins

Cause Group Code: B18R-02-PH **Briery Branch**

Location: Briery Branch from the headwaters downstream to its confluence with Hone Quarry Run. (Start Mile: 14.86 End Mile: 7.67

Total Impaired Size: 7.19 Miles)

City / County: Augusta Co. Rockingham Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5C

This segment remained impaired due to previous violations of the pH WQS at station: 1BBRY006.94. This assessment unit had 2 pH minimum standard violations out of 9 samples for the 2006 assessment window at station 1BBRY006.94. No additional data is available for the 2014 assessment cycle. In the 2002 assessment window, this segment was listed as impaired and carries forward to this cycle. The Category 5C - Impaired - No TMDL due to natural conditions carries from the 2006 assessment. Initial Listing Date: 2002.

Briery Branch Estuary Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life** 7.18

pH - Total Impaired Size by Water Type:

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



Potomac and Shenandoah River Basins

Cause Group Code: B18R-06-PH Rocky Run

Location: Rocky Run from the headwaters downstream to its confluence with Briery Branch. (Start Mile: 1.94 End Mile: 0.00 Total

Impaired Size: 1.94 Miles)

City / County: Rockingham Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5A

This segment is impaired due to violations of the pH WQS at station: UVA RH33 (12 violations of 12 samples for pH in 2010, no new data for 2014, impairment carries forward). Initial Listing Date: 2006.

Rocky Run

Aquatic Life

PH - Total Impaired Size by Water Type:

Reservoir (Sq. Miles)

River (Acres) (Miles)

River (Acres)

(Miles)

Appendix 5 - 127

Sources:

Atmospheric Deposition - Acidity

Final 2014



Potomac and Shenandoah River Basins

Cause Group Code: B18R-07-PH **Union Springs Run**

Location: Union Springs Run from the headwaters downstream to its confluence with Red Banks Run. (Start Mile: 3.74 End Mile: 0.00

Total Impaired Size: 3.74 Miles)

City / County: Rockingham Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5A

This segment is impaired due to violations of the pH WQS at station: UVA RH34 (12 violations of 12 samples for pH in 2010, no new data for 2014, impairment carries forward). Initial Listing Date: 2006.

Union Springs Run Estuary Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life** pH - Total Impaired Size by Water Type:

3.73

Sources:

Atmospheric Deposition -Acidity



Potomac and Shenandoah River Basins

Cause Group Code: B20L-01-TEMP Switzer Lake

Location: Switzer Lake (Total Impaired Size: 99.49 Acres)

City / County: Rockingham Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Temperature, water / 5A

This lake is impaired due to violations of the temperature WQS at station: 1BSKD003.18 (50 violations of 335 samples for temperature). Initial Listing Date: 2006.

Switzer Lake

Estuary Reservoir River
Aquatic Life

(Sq. Miles) (Acres) (Miles)

Temperature, water - Total Impaired Size by Water Type:

99.49

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: B20R-01-PH Dry River

Location: Dry River from its confluence with Little Laurel Run downstream to its confluence with Blacks Run. (Start Mile: 20.83 End

Mile: 10.65 Total Impaired Size: 10.18 Miles) This segment was shortened in 2014 due to a downstream assessment unit

returning for fully supporting status.

City / County: Rockingham Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5A

This segment is impaired due to violations of the pH WQS at station: 1BDUR017.26 (2 violations of 12 samples for pH). Initial

Listing Date: 2002.

Dry River Estuary Reservoir River Aquatic Life (Sq. Miles) (Acres) (Miles)

pH - Total Impaired Size by Water Type:

10.18

Sources:

Atmospheric Deposition - Acidity

Final 2014



Potomac and Shenandoah River Basins

Cause Group Code: B30R-02-PH Loves Run

Location: Loves Run from the headwaters downstream to its confluence with the South River. (Start Mile: 5.64 End Mile: 0.00 Total

Impaired Size: 5.64 Miles)

City / County: Augusta Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5A

This segment is impaired due to violations of the pH WQS at station: UVA AU14 (12 violations of 12 samples for pH) This data is now outside the assessment data window, however the impairment must carry forward. Initial Listing Date: 2006.

Loves Run

Aquatic Life

Estuary Reservoir (Miles)

River (Sq. Miles)

PH - Total Impaired Size by Water Type:

5.63

Sources:

Atmospheric Deposition - Acidity



Potomac and Shenandoah River Basins

Cause Group Code: B30R-03-BEN Pine Run

Location: Pine Run from the headwaters downstream to its confluence with the South River. (Start Mile: 20.41 End Mile: 0.00 Total

Impaired Size: 20.41 Miles)

City / County: Augusta Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

This segment is impaired due to violations of the General Standard for benthics at station: 1BPNE001.60 (Impaired for VSCI).

Initial Listing Date: 2014

Pine Run

Estuary Reservoir River

Aquatic Life

(Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type: 20.38

Sources:

Agriculture Non-Point Source



Potomac and Shenandoah River Basins

Cause Group Code: B31L-01-PH Coles Run Reservoir

Location: Coles Run Reservoir (Total Impaired Size: 11.44 Acres)

City / County: Augusta Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5A

This lake is impaired due to violations of the pH WQS at station: 1BCLS003.60 (88 violations of 88 samples for pH). Initial

Listing Date: 2008.

Coles Run Reservoir

Aquatic Life

Estuary (Sq. Miles)

Reservoir (Acres)

River (Miles)

pH - Total Impaired Size by Water Type:

11.44

Sources:

Atmospheric Deposition - Acidity



Potomac and Shenandoah River Basins

Cause Group Code: B31R-01-BAC **Back Creek**

Location: Back Creek from the headwaters (including South Fork Back Creek) downstream to the confluence with South River. (Start

Mile: 12.87 End Mile 0.00 Total Impaired Size 12.87 Miles)

City / County: Augusta Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

This segment is impaired due to violations of the e-coli bacteria WQS at station 1BBCK000.78. (2 violations of 9 samples for e-

coli). Initial Listing Date: 2012.

Back Creek Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

> Escherichia coli - Total Impaired Size by Water Type: 12.85

Sources:

Recreation

Non-Point Source Wildlife Other than Agriculture

Waterfowl



Potomac and Shenandoah River Basins

Cause Group Code: B31R-01-BEN Back Creek

Location: Back Creek from the headwaters (including South Fork Back Creek) downstream to the confluence with South River. (Start

Mile: 12.87 End Mile 0.00 Total Impaired Size 12.87 Miles)

City / County: Augusta Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

This segment is impaired due to violations of the General Standard for Benthics at station 1BBCK000.78 (Impaired for VSCI). Initial Listing Date 2002.

Back Creek

Aquatic Life

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

Estuary (Sq. Miles)

(Acres)

River (Miles)

12.85

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: B31R-02-BEN Mills Creek

Location: Mills Creek from the headwaters downstream to its confluence with Back Creek. (Start Mile: 9.14 End Mile: 0.00 Total

Impaired Size: 9.14 Miles)

City / County: Augusta Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

This segment is impaired due to violations of the General Standard for Benthics at USFS Station: 5116 (Impaired for VSCI) and 1BMLS002.37 (Impaired for VSCI). Initial Listing Date: 2002.

Mills Creek Estuary Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life** 9.12

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

Sources:

Atmospheric Deposition -Acidity

Final 2014



Potomac and Shenandoah River Basins

Cause Group Code: B31R-04-PH Coles Run

Location: Coles Run from the headwaters downstream to its confluence with South River. (Start Mile: 6.89 End Mile: 0.00 Total

Impaired Size: 6.89 Miles)

City / County: Augusta Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5A

This segment is impaired due to violations of the pH WQS at station: UVA AU16 (12 violations of 12 samples for pH in 2010, no new data are available in 2014, however, the impairment carries forward). Initial Listing Date: 2006.

Coles Run Estuary Reservoir River Aquatic Life (Sq. Miles) (Acres) (Miles)

pH - Total Impaired Size by Water Type:

6.87

Sources:

Atmospheric Deposition - Acidity



Potomac and Shenandoah River Basins

Cause Group Code: B31R-05-PH Johns Run

Location: Johns Run from the headwaters downstream its confluence with South River. (Start Mile: 5.46 End Mile: 0.00 Total Impaired

Size: 5.46 Miles)

City / County: Augusta Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5A

This segment is impaired due to violations of the pH WQS at station: UVA AU15 (12 violations of 12 samples for pH in 2010, no new data are available in 2014, however, the impairment carries forward. Initial Listing Date: 2006.

Johns Run

Aquatic Life

Estuary Reservoir (Niles)

River (Sq. Miles)

PH - Total Impaired Size by Water Type:

5.45

Sources:

Atmospheric Deposition - Acidity



Potomac and Shenandoah River Basins

Cause Group Code: B31R-06-PH Kennedy Creek

Location: Kennedy Creek and tributaries from the headwaters downstream to its confluence with South River. (Start Mile: 15.48 End

Mile: 0.00 Total Impaired Size: 15.48 Miles)

City / County: Augusta Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5A

This segment is impaired due to violations of the pH WQS at station: UVA VT39 (12 violations of 12 samples for pH in 2010, no new data are available in 2014, however, the impairment carries forward). Initial Listing Date: 2006.

Kennedy Creek

Aquatic Life

Estuary (Sq. Miles)

PH - Total Impaired Size by Water Type:

River (Miles)

River (Miles)

Sources:

Atmospheric Deposition - Acidity



Potomac and Shenandoah River Basins

Cause Group Code: B31R-07-PH Orebank Creek

Location: Orebank Creek from the headwaters downstream to its confluence with Back Creek. (Start Mile: 3.56 End Mile: 0.00 Total

Impaired Size: 3.56 Miles)

City / County: Augusta Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5A

This segment is impaired due to violations of the pH WQS at station: UVA OB01 (12 violations of 12 samples for pH in 2010, no new data are available in 2014, however, the impairment carries forward). Initial Listing Date: 2006.

Orebank Creek

Aquatic Life

Estuary Reservoir (Miles)

River (Sq. Miles)

PH - Total Impaired Size by Water Type:

3.55

Sources:

Atmospheric Deposition - Acidity



Potomac and Shenandoah River Basins

Cause Group Code: B32R-02-PCB South River

Location: South River from its confluence with Stull Run downstream to its confluence with North River. (Start Mile: 5.38 End Mile:

0.00 Total Impaired Size: 5.38 Miles)

City / County: Augusta Co. Rockingham Co.

Use(s): Fish Consumption

Cause(s) /

VA Category: PCB in Fish Tissue / 5A

This segment is impaired due to the presence of PCB's in fish tissue at station: 1BSTH000.19 (2 samples of PCB's (Carp and Redhorse Sucker (2005). Initial Listing Date: 2008.

South River Estuary Reservoir River
Fish Consumption (Sq. Miles) (Acres) (Miles)

PCB in Fish Tissue - Total Impaired Size by Water Type: 5.37

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: B32R-03-PH Paine Run

Location: Paine Run from the headwaters downstream to its confluence with South River. (Start Mile: 6.75 End Mile: 0.00 Total

Impaired Size: 6.75 Miles)

City / County: Augusta Co. Rockingham Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5A

This segment is impaired due to violations of the pH WQS at stations: UVA PAIN (11 violations of 12 samples for pH) (This data is now outside the assessment data window, however the impairment carries forward to 2014). Initial Listing Date: 2004.

Paine Run

Estuary Reservoir River

Aquatic Life

(Sq. Miles) (Acres) (Miles)

pH - Total Impaired Size by Water Type: 6.73

Sources:

Atmospheric Deposition - Acidity

Final 2014



Potomac and Shenandoah River Basins

Cause Group Code: B32R-04-PH Meadow Run

Location: Meadow Run from the headwaters downstream to the end of surface flow. (Start Mile: 8.82 End Mile: 0.00 Total Impaired

Size: 8.82 Miles)

City / County: Augusta Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5A

This segment is impaired due to violations of the pH WQS at station: UVA VT36 (12 violations of 12 samples for pH in 2010 cycle) (This data is now outside the assessment data window, however, the impairment carries forward to 2014). Initial Listing

Date: 2004.

Meadow RunEstuaryReservoirRiverAquatic Life(Sq. Miles)(Acres)(Miles)

pH - Total Impaired Size by Water Type:

8.82

Sources:

Atmospheric Deposition - Acidity



Potomac and Shenandoah River Basins

Cause Group Code: B33R-02-PH Deep Run

Location: Deep Run from the headwaters downstream to its confluence with the South Fork Shenandoah River. (Start Mile: 4.49 End

Mile: 0.00 Total Impaired Size: 4.49 Miles)

City / County: Rockingham Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5A

This segment is impaired due to violations of the pH WQS at station: UVA DR01 (12 violations of 12 samples for pH) (This data is now outside the assessment data window, however, the impairment carries forward to 2014. Initial Listing Date: 2004.

Deep Run

Aquatic Life

Estuary (Sq. Miles)

PH - Total Impaired Size by Water Type:

River (Miles)

Acres (Miles)

4.49

Sources:

Atmospheric Deposition - Acidity



Potomac and Shenandoah River Basins

Cause Group Code: B33R-03-PH Lower Lewis Run

Location: Lower Lewis Run from the headwaters downstream to its confluence with the South Fork Shenandoah River. (Start Mile:

3.94 End Mile: 0.00 Total Impaired Size: 3.94 Miles)

City / County: Rockingham Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5A

This segment is impaired due to violations of the pH WQS at station: UVA RH47 (12 violations of 12 samples for pH) (This data is now outside the assessment data window, however, the impairment carries forward to 2014. Initial Listing Date: 2006.

Lower Lewis Run

Aquatic Life

Estuary (Sq. Miles)

River (Miles)

PH - Total Impaired Size by Water Type:

3.93

Sources:

Atmospheric Deposition - Acidity



Potomac and Shenandoah River Basins

Cause Group Code: B35R-01-BAC Boone Run

Location: Boone Run and tributaries from the headwaters downstream to its confluence with the South Fork Shenandoah River. (Start

Mile: 13.82 End Mile: 0.00 Total Impaired Size: 13.82 Miles)

City / County: Rockingham Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A Fecal Coliform / 5A

This segment remains impaired for recreational use due to violations of the e-coli bacteria WQS at station: 1BBON000.60 (25 violations of 59 samples for e-coli). Initial Listing Date: 2002.

Boone Run Recreation		Estuary Sq. Miles)	Reservoir (Acres)	River (Miles)
	Escherichia coli - Total Impaired Size by Water Type:			13.81
Boone Run		Estuary	Reservoir	River
Recreation		Sq. Miles)	(Acres)	(Miles)
	Fecal Coliform - Total Impaired Size by Water Type:			13.81

Sources:

Non-Point Source Wildlife Other than

Waterfowl



Potomac and Shenandoah River Basins

Cause Group Code: B35R-02-BAC Quail Run

Location: Quail Run from the headwaters downstream to its confluence with Boone Run. (Start Mile: 6.60 End Mile: 0.00 Total

Impaired Size: 6.60 Miles)

City / County: Rockingham Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A Fecal Coliform / 5A

This segment is impaired due to violations of the e-coli bacteria WQS at stations: 1BBON001.46 (16 violations of 38 samples for e-coli), 1BQAL004.30 (7 violations of 27 samples for e-coli) and 1BQAL005.29 (9 violations of 47 samples for e-coli). Initial Listing Date: 2004 (lengthened 2010).

Quail Run		Estuary	Reservoir	River
Recreation		(Sq. Miles)	(Acres)	(Miles)
	Escherichia coli - Total Impaired Size by Water Type:			6.58
Quail Run		Estuary	Reservoir	River
		(Sq. Miles)	(Acres)	(Miles)
Recreation				

Sources:

Agriculture Non-Point Source Wildlife Other than Waterfowl



Potomac and Shenandoah River Basins

Cause Group Code: B35R-03-BEN Quail Run

Location: Quail Run from the headwaters downstream to the Massanutten STP discharge. (Start Mile: 6.60 End Mile: 5.14 Total

Impaired Size: 1.46 Miles)

City / County: Rockingham Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5C

This segment is impaired due to violations of the General Standard for Benthics at station: 1BQAL005.04 (Impaired for VSCI) and 1BQAL005.09 (Impaired for VSCI). Initial Listing Date: 2002.

Quail RunEstuaryReservoirRiverAquatic Life(Sq. Miles)(Acres)(Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

1.46

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



Potomac and Shenandoah River Basins

Cause Group Code: B35R-04-PH Two Mile Run

Location: Two Mile Run from the headwaters downstream to its confluence with the South Fork Shenandoah River. (Start Mile: 5.06

End Mile: 0.00 Total Impaired Size: 5.06 Miles)

City / County: Rockingham Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5A

This segment is impaired due to violations of the pH WQS at station: UVA VT53 (12 violations of 12 samples for pH) (This data is now outside the assessment data window, however, the impairment will carry forward to 2014). Initial Listing Date: 2006.

Two Mile Run

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

pH - Total Impaired Size by Water Type:

5.05

Sources:

Atmospheric Deposition - Acidity



Potomac and Shenandoah River Basins

Cause Group Code: B35R-05-PH One Mile Run

Location: One Mile Run from the headwaters downstream to its confluence with the South Fork Shenandoah River (Start Mile: 9.17

End Mile: 0.00, Total Impaired Size: 9.17 Miles)

City / County: Rockingham Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5A

This segment is impaired due to violations of the pH WQS at station: UVA RH52 (6 violations of 6 samples for pH) This data is now outside the assessment window for 2014, however the impairment carries forward to 2014. Initial Listing Date: 2010

One Mile Run Estuary Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life**

pH - Total Impaired Size by Water Type:

9.16

Sources:

Atmospheric Deposition -Acidity



Potomac and Shenandoah River Basins

Cause Group Code: B37R-01-PCB South Fork Shenandoah River

Location: South Fork Shenandoah River from its confluence with Naked Creek downstream to its confluence with Stony Creek just

above the Route 340 bridge at Alma. (Start Mile: 78.23 End Mile: 59.46 Total Impaired Size: 18.77)

City / County: Page Co. Rockingham Co.

Use(s): Fish Consumption

Cause(s) /

VA Category: PCB in Fish Tissue / 5A

This segment is impaired due to violations of the fish tissues screening value for PCB at stations: 1BSSF063.17 (2 samples of PCB in Lmouth Bass & Redbreast Sunfish) and 1BSSF078.24 (3 samples of PCB in White Sucker, Redbreast Sunfish & Smouth Bass). Initial Listing Date: 2010

South Fork Shenandoah River

Fish Consumption

Estuary (Sq. Miles)

Reservoir (Acres)

River (Miles)

PCB in Fish Tissue - Total Impaired Size by Water Type:

18.75

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: B37R-02-BAC Line Run

Location: Line Run from the headwaters downstream to its confluence with Honey Run. (Start Mile: 4.94 End Mile: 0.00 Total

Impaired Size: 4.94 Miles)

City / County: Page Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

This segment is impaired due to violations of the e-coli bacteria WQS at station: 1BLIN001.60 (4 violations of 36 samples for e-coli in 2010, 2 of 33 in 2012, 1 of 24 in 2014), no new data for assessment. Segment remains impaired in 2014. Initial Listing

Date: 2006.

Line Run Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type:

4.93

Sources:

Non-Point Source Wildlife Other than

Waterfowl



Potomac and Shenandoah River Basins

Cause Group Code: B37R-03-BAC Honey Run

Location: Honey Run from the headwaters downstream to its confluence with the South Fork Shenandoah River. (Start Mile: 5.11 End

Mile: 0.00 Total Impaired Size: 5.11 Miles)

City / County: Page Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

This segment is impaired due to violations of the e-coli bacteria WQS at station: 1BHDY000.91 (7 violations of 32 samples for

e-coli). Initial Listing Date: 2008.

Honey Run Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type: 5.10

Sources:

Agriculture Non-Point Source Wildlife Other than

Waterfowl



Potomac and Shenandoah River Basins

Cause Group Code: B37R-04-TEMP Cub Run

Location: Cub Run in Page County from the headwaters downstream to its confluence with the South Fork Shenandoah River. (Start

Mile: 9.81 End Mile: 0.00 Total Impaired Size: 9.81 Miles)

City / County: Page Co. Rockingham Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Temperature, water / 5A

This segment is impaired due to violations of the temperature WQS at station: 1BCUB-FP12-FOSR (13 violations of 95 samples for temperature). Initial Listing Date: 2012

Cub Run Estuary Reservoir River Aquatic Life (Sq. Miles) (Acres) (Miles)

Temperature, water - Total Impaired Size by Water Type: 9.79

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: B38R-02-BAC Big Run

Location: Big Run from the headwaters downstream to its confluence with the South Fork Shenandoah River. (Start Mile: 6.41 End

Mile: 0.00 Total Impaired Size: 6.41 Miles)

City / County: Page Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

This segment is impaired due to violations of the e-coli bacteria WQS at station: 1BBIG000.48 (21 violations of 23 samples for

e-coli). Initial Listing Date: 2006.

Big RunEstuaryReservoirRiverRecreation(Sq. Miles)(Acres)(Miles)

Escherichia coli - Total Impaired Size by Water Type:

6.40

Sources:

Agriculture Non-Point Source Wildlife Other than

Waterfowl



Potomac and Shenandoah River Basins

Cause Group Code: B39R-03-BEN East Hawksbill Creek

Location: East Hawksbill Creek from the headwaters downstream to its confluence with Hawksbill Creek. (Start Mile: 9.38 End Mile:

0.00 Total Impaired Size: 9.38 Miles)

City / County: Page Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

This segment is impaired due to violations of the General Standard for Benthics at station: 1BEHC001.18 (Impaired for VSCI). Initial Listing Date: 2008.

initial Listing Date. 2006.

East Hawksbill Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type: 9.38

Sources:

Agriculture Non-Point Source



Potomac and Shenandoah River Basins

Cause Group Code: B39R-03-PH Rocky Branch

Location: Rocky Branch from the headwaters downstream to its confluence with Pass Run. (Start Mile: 4.25 End Mile: 0.00 Total

Impaired Size: 4.25 Miles)

City / County: Page Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5A

This segment is impaired due to violations of the pH WQS at station: USGS 163054325. Initial Listing Date: 2004; This segment is impaired for aquatic life use based on violations of the pH WQS at USGS site 163054325. This use support carries forward for the 2006 assessment as no new data are available for assessment in 2014.

Rocky Branch
Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

pH - Total Impaired Size by Water Type:

4.25

Sources:

Atmospheric Deposition - Acidity



Potomac and Shenandoah River Basins

Cause Group Code: B39R-03-TEMP **Pass Run**

Location: Pass Run from the headwaters downstream to its confluence with Hawksbill Creek. (Start Mile: 9.48 End Mile: 0.00 Total

Impaired Size: 9.48 Miles)

City / County: Page Co. Use(s): Aquatic Life

Cause(s) /

VA Category: Temperature, water / 5A

This segment is impaired due to violations of the temperature WQS at station: 1BPSS-FP17-FOSR (29 violations of 74 samples for temperature). Initial Listing Date: 2010

Pass Run Estuary Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life** 9.47

Temperature, water - Total Impaired Size by Water Type:

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: B39R-04-BEN Dry Run

Location: Dry Run from the outfall of Lake Arrowhead downstream to its confluence with Hawksbill Creek. (Start Mile: 5.52 End Mile:

0.00 Total Impaired Size: 5.52 Miles)

City / County: Page Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

This segment is impaired due to violations of the General Standard for Benthics at station: 1BDRI000.21 (Impaired for VSCI).

Initial Listing Date: 2012

Dry Run Estuary Reservoir River Aquatic Life (Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type: 5.52

Sources:

Agriculture Dam or Impoundment Non-Point Source



Potomac and Shenandoah River Basins

Cause Group Code: B40R-01-BAC Jeremys Run

Location: Jeremys Run from the headwaters downstream to its confluence with the South Fork Shenandoah River. (Start Mile: 11.70

End Mile: 0.00 Total Impaired Size: 11.70 Miles)

City / County: Page Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

This segment is impaired due to violations of the e-coli bacteria WQS at station: 1BJER000.62 (5 violations of 12 samples for e-

coli). Initial Listing Date: 2012

Jeremys Run Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type: 11.69

Sources:

Agriculture Non-Point Source Wildlife Other than

Waterfowl



Potomac and Shenandoah River Basins

Cause Group Code: B40R-01-PH Jeremys Run

Location: Jeremys Run from the headwaters downstream to its confluence with the South Fork Shenandoah River. (Start Mile: 11.70

End Mile: 0.00 Total Impaired Size: 11.70 Miles)

City / County: Page Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5A

This segment is impaired due to violations of the pH WQS at station: USGS 01630565. Initial Listing Date: 2004; This impairment carries forward from the 2006 cycle as no additional data are available in the 2014 cycle.

Jeremys RunEstuaryReservoirRiverAquatic Life(Sq. Miles)(Acres)(Miles)

pH - Total Impaired Size by Water Type: 11.69

Sources:

Atmospheric Deposition - Acidity



Potomac and Shenandoah River Basins

Cause Group Code: B40R-02-BAC Flint Run

Location: Flint Run and tributaries from the headwaters downstream to its confluence with the South Fork Shenandoah River. (Start

Mile: 12.59 End Mile: 0.00 Total Impaired Size: 12.59 Miles)

City / County: Warren Co.

Use(s): Recreation

Cause(s) /

VA Category: Fecal Coliform / 5A

This segment remains impaired due to violations of the fecal coliform WQS at station: 1BFNT002.16. Initial Listing Date: 2004; This impairment carries forward from the 2006 assessment based on fecal coliform as no additional e-coli data are available for assessment in 2014.

Flint Run

Recreation

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Fecal Coliform - Total Impaired Size by Water Type:

12.58

Sources:

Agriculture Non-Point Source Wildlife Other than

Waterfowl



Potomac and Shenandoah River Basins

Cause Group Code: B40R-03-BAC **Gooney Run**

Location: Gooney Run and tributaries from the headwaters downstream to its confluence with the South Fork Shenandoah River.

(Start Mile: 20.18 End Mile: 0.00 Total Impaired Size: 20.18 Miles)

City / County: Warren Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

This segment is impaired due to violations of the e-coli bacteria WQS at station: 1BGNY000.04 (2 violations of 13 samples for

e-coli). Initial Listing Date: 2010.

Gooney Run Estuary Reservoir River (Sq. Miles) (Acres) (Miles) Recreation

> Escherichia coli - Total Impaired Size by Water Type: 20.16

Sources:

Agriculture Non-Point Source Wildlife Other than

Waterfowl



Potomac and Shenandoah River Basins

Cause Group Code: B40R-03-TEMP **Gooney Run**

Location: Gooney Run and tributaries from the headwaters downstream to its confluence with the South Fork Shenandoah River.

(Start Mile: 20.18 End Mile: 0.00 Total Impaired Size: 20.18 Miles)

City / County: Warren Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Temperature, water / 5A

This segment is impaired due to violations of the temperature WQS at station: 1BGNY000.04 (2 violations of 13 samples for temperature) and USGS 0163700 (2 violations of 14 samples for temperature). Initial Listing Date: 2006.

Gooney Run Estuary Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life** 20.16

Temperature, water - Total Impaired Size by Water Type:

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: B40R-04-TEMP Flint Run

Location: Flint Run from a point 4 miles upstream of its confluence with the South Fork Shenandoah River downstream to its confluence with the South Fork Shenandoah River. (Start Mile: 4.10 End Mile: 0.00 Total Impaired Size: 4.10 Miles)

City / County: Warren Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Temperature, water / 5A

This segment is impaired due to violations of the temperature WQS standard at station: 1BFNT-FW21-FOSR (9 violations of 38 samples for temperature). Initial Listing Date: 2010

Flint Run

Aquatic Life

Temperature, water - Total Impaired Size by Water Type:

Estuary (Sq. Miles)

Reservoir (Miles)

(Acres)

River (Miles)

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: B41R-01-BAC Happy Creek

Location: Happy Creek from the headwaters downstream to its confluence with the South Fork Shenandoah River. (Start Mile: 8.55

End Mile: 0.00 Total Impaired Size: 8.55 Miles)

City / County: Warren Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A Fecal Coliform / 5A

This segment remains impaired due to violations of the e-coli WQS at station: 1BHPY001.29. (3 violations of 12 samples for e-coli). Initial Listing Date: 2004.

Happy Creek Recreation		Estuary q. Miles)	Reservoir (Acres)	River (Miles)
	Escherichia coli - Total Impaired Size by Water Type:			8.54
Happy Creek	Es	Estuary	Reservoir	River
Recreation	(Sq	q. Miles)	(Acres)	(Miles)
	Fecal Coliform - Total Impaired Size by Water Type:			8.54

Sources:

Agriculture Non-Point Source Wildlife Other than Waterfowl



Potomac and Shenandoah River Basins

Cause Group Code: B41R-03-BEN Happy Creek

Location: Happy Creek from the headwaters downstream to its confluence with the South Fork Shenandoah River. (Start Mile: 8.55

End Mile: 0.00 Total Impaired Size: 8.55 Miles)

City / County: Warren Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

This segment is impaired due to violations of the General Standard for Benthics at station: 1BHPY001.29 (Impaired for VSCI) and 1BHPY002.67 (Impaired for VSCI). Initial Listing Date: 2008.

Happy Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type: 8.54

Sources:

Agriculture Non-Point Source



Potomac and Shenandoah River Basins

Cause Group Code: B41R-04-BAC South Fork Shenandoah River

Location: South Fork Shenandoah River from its confluence with Gooney Run downstream to its confluence with the North Fork Shenandoah River. (Start Mile: 10.32 End Mile: 0.00 Total Impaired Size: 10.32 Miles) This segment was lengthened in

2012.

City / County: Warren Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

This segment is impaired due to violations of the e-coli bacteria WQS at station: 1BSSF000.19 (5 violations of 12 samples for e-coli); 1BSSF003.56 (4 violations of 37 samples for e-coli) and 1BSSF009.58 (2 violations of 13 samples for e-coli). Initial

Listing Date: 2010

South Fork Shenandoah River

Estuary (Sq. Miles)

Reservoir (Acres)

River (Miles)

Escherichia coli - Total Impaired Size by Water Type:

10.31

Sources:

Recreation

Agriculture

Non-Point Source

Wildlife Other than Waterfowl



Potomac and Shenandoah River Basins

Cause Group Code: B42R-01-BAC Crab Run

Location: Crab Run from the VA/WVA line downstream to its confluence with the German River. (Start Mile: 3.93 End Mile: 0.00 Total

Impaired Size: 3.93 Miles)

City / County: Rockingham Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

This segment is impaired due to violations of the e-coli bacteria WQS at station: 1BCRB000.18 (2 violations of 11 samples for

e-coli). Initial Listing Date: 2010

Crab Run Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type: 3.93

Sources:

Agriculture Non-Point Source Wildlife Other than

Waterfowl



Potomac and Shenandoah River Basins

Cause Group Code: B42R-01-BEN North Fork Shenandoah River

Location: North Fork Shenandoah River from its confluence with the German River downstream to its confluence with Capon Run

(Start Mile: 107.67 End Mile: 105.08 Total Impaired Size: 2.59 Miles)

City / County: Rockingham Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

This segment is impaired due to violations of the General Standard for Benthics at station: 1BNFS107.86 (Impaired for VSCI).

Initial Listing Date: 2010

North Fork Shenandoah River

Estuary (Sq. Miles)

Reservoir (Acres)

River (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

2.59

Sources:

Aquatic Life

Non-Point Source



Potomac and Shenandoah River Basins

Cause Group Code: B45R-01-BEN Long Meadow Run

Location: Long Meadow Run from the headwaters downstream to its confluence with the North Fork Shenandoah River. (Start Mile:

9.85 End Mile: 0.00 Total Impaired Size: 9.85 Miles)

City / County: Rockingham Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

This segment is impaired due to violations of the General Standard for Benthics at station: 1BLOM000.24 (Impaired for VSCI). Initial Listing Date 2008.

Long Meadow Run

Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

9.85

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: B45R-02-BEN Turley Creek

Location: Turley Creek from the headwaters downstream to its confluence with the North Fork Shenandoah River. (Start Mile: 4.04

End Mile: 0.00 Total Impaired Size: 4.04 Miles)

City / County: Rockingham Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

This segment is impaired due to violations of the General Standard for Benthics at station: 1BTRL000.02 (Impaired for VSCI). Initial Listing Date: 2002.

Turley Creek

Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

4.03

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: B45R-05-BEN North Fork Shenandoah River

Location: North Fork Shenandoah River from its confluence with Linville Creek downstream to its confluence with Holmans Creek.

(Start Mile: 89.74 End Mile: 76.14 Total Impaired Size: 13.6 Miles) This impairment size was lengthened in 2012 to include

2 upstream assessment units.

City / County: Rockingham Co. Shenandoah Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

This segment is impaired due to violations of the General Standard for Benthics at station: 1BNFS087.35 (Impaired for VSCI).

Initial Listing Date: 2008.

North Fork Shenandoah River

Estuary Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life**

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

13.53

Sources:

Industrial Point Source

Municipal (Urbanized High Density Area)

Non-Point Source

Discharge



Potomac and Shenandoah River Basins

Cause Group Code: B47R-01-BEN Fridley Run

Location: Fridley Run from the headwaters downstream to its confluence with Mountain Run. (Start Mile: 2.38 End Mile: 0.00 Total

Impaired Size: 2.38 Miles)

City / County: Rockingham Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

This segment is impaired due to violations of the General Standard for Benthics at station: USFS 4074 (MAIS Impaired) New data in 2014 indicate improving condition, however remains impaired based on best professional judgment. Initial Listing

Date: 2002.

Fridley Run

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

2.37

Sources:

Atmospheric Deposition - Acidity



Potomac and Shenandoah River Basins

Cause Group Code: B47R-01-PH Fridley Run

Location: Fridley Run from the headwaters downstream to its confluence with Mountain Run. (Start Mile: 2.38 End Mile: 0.00 Total

Impaired Size: 2.38 Miles)

City / County: Rockingham Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5A

This segment is impaired due to violations of the pH WQS at station: 1BFDY000.02 (10 violations of 14 samples for pH) Initial

Listing Date: 2006.

Fridley Run

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

pH - Total Impaired Size by Water Type: 2.37

Sources:

Atmospheric Deposition - Acidity



Potomac and Shenandoah River Basins

Cause Group Code: B47R-07-BEN Dry Fork

Location: Dry Fork from the headwaters downstream to its confluence with Smith Creek. (Start Mile: 10.85 End Mile: 0.00 Total

Impaired Size: 10.85 Miles)

City / County: Rockingham Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

This segment is impaired due to violations of the General Standard for Benthics at stations: 1BDFK003.82 (Impaired for VSCI) and 1BDFK004.03 (Impaired for VSCI) in 2010 cycle, no new data in 2014. Initial Listing Date: 2006.

Dry Fork Estuary Reservoir River Aquatic Life (Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type: 10.85

Sources:

Non-Point Source



Potomac and Shenandoah River Basins

Cause Group Code: B48R-02-BEN Crooked Run

Location: Crooked Run from the headwaters downstream to its confluence with Mill Creek. (Start Mile: 4.08 End Mile: 0.00 Total

Impaired Size: 4.08 Miles)

City / County: Shenandoah Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

This segment is impaired due to violations of the General Standard for Benthics at station: 1BCKD000.38 (Impaired for VSCI). Initial Listing Date: 2008.

Crooked Run

Estuary Reservoir River

Aquatic Life

(Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

4.07

Sources:

Agriculture Non-Point Source



Potomac and Shenandoah River Basins

Cause Group Code: B49R-01-BEN **Stony Creek**

Location: Stony Creek from the Georges Chicken discharge downstream to its confluence with the North Fork Shenandoah River.

(Start Mile: 5.86 End Mile: 0.00 Total Impaired Size: 5.86 Miles)

City / County: Shenandoah Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

This segment is impaired due to violations of the General Standard for Benthics at station: 1BSTY004.24 (Impaired for VSCI).

Appendix 5 - 178

Initial Listing Date: 2008.

Stony Creek Estuary Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life**

> Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type: 5.85

Sources:

Agriculture Municipal (Urbanized High Non-Point Source

Density Area)

Final 2014



Potomac and Shenandoah River Basins

Cause Group Code: B49R-05-TEMP Little Stony Creek

Location: Little Stony Creek and tributary from the headwaters of the tributary and the confluence of the tributary with Little Stony

Creek near USFS Road 92 downstream to the confluence with Stony Creek. (Start Mile: 4.91 End Mile: 0.00 Total Impaired

Size: 4.91 Miles.

City / County: Shenandoah Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Temperature, water / 5A

This segment is impaired due to violations of the temperature WQS at station: 1BLSC000.50 (3 violations of 10 for

temperature) Initial Listing Date: 2012.

Little Stony Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Temperature, water - Total Impaired Size by Water Type:

4.91

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: B49R-07-TEMP Stony Creek

Location: Stony Creek from the Lake Laura dam outfall downstream to the Route 682 bridge (Wakeman's Grove Road). (Start Mile:

23.44 End Mile: 4.59 Total Impaired Size: 18.85 Miles) This impairments downstream extents was modified in 2012 and the

impairment lengthened based on additional data.

City / County: Shenandoah Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Temperature, water / 5A

This segment is impaired due to violations of the temperature WQS at station: 1BSTY013.85 (3 violations of 10 samples for temperature); 1BSTY-NS30-FOSR (17 violations of 110 samples for temperature); 1BSTY-NS58-FOSR (15 violations of 110 samples for temperature) and 1BSTY-NS29-FOSR (13 violations of 110 samples for temperature). Initial Listing Date: 2006.

Stony Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Temperature, water - Total Impaired Size by Water Type: 18.84

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: B50R-03-BAC Pughs Run

Location: Pughs Run from the headwaters downstream to its confluence with the North Fork Shenandoah River. (Start Mile: 7.00 End

Mile: 0.00 Total Impaired Size: 7.00 Miles)

City / County: Shenandoah Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A Fecal Coliform / 5A

This segment is impaired due to violations of the e-coli bacteria WQS at station: 1BPGH000.60 (4 violations of 10 samples for e-coli in 2012, no data in 2014, impairment carried forward). Initial Listing Date: 2004

Pughs Run		Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Recreation	Escherichia coli - Total Impaired Size by Water Type:	· ' '	(ACIES)	7.00
Pughs Run		Estuary	Reservoir	River
Recreation		(Sq. Miles)	(Acres)	(Miles)
	Fecal Coliform - Total Impaired Size by Water Type:			7.00

Sources:

Agriculture Non-Point Source Wildlife Other than Waterfowl



Potomac and Shenandoah River Basins

Cause Group Code: B50R-03-BEN Pughs Run

Location: Pughs Run from the headwaters downstream to its confluence with the North Fork Shenandoah River. (Start Mile: 7.00 End

Mile: 0.00 Total Impaired Size: 7.00 Miles)

City / County: Shenandoah Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

This segment is impaired due to violations of the General Standard for benthics at station: 1BPGH000.29 (Impaired for VSCI).

Initial Listing Date: 2012

Pughs Run

Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type: 7.00

Sources:

Agriculture Non-Point Source



Potomac and Shenandoah River Basins

Cause Group Code: B51R-01-BAC Tumbling Run

Location: Tumbling Run from the headwaters downstream to the 5 mile upper limit of the PWS designation for the Strasburg Public

Water Intake. (Start Mile: 5.20 End Mile: .95 Total Impaired Size: 4.25 Miles)

City / County: Shenandoah Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A Fecal Coliform / 5A

This segment is impaired due to violations of the e-coli bacteria WQS at station: 1BTBL-NS44-FOSR (5 violations of 18 samples for e-coli). Initial Listing Date: 2004

Tumbling Run Recreation		Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
	Escherichia coli - Total Impaired Size by Water Type	:		4.24
Tumbling Run		Estuary	Reservoir	River
Recreation		(Sq. Miles)	(Acres)	(Miles)
	Fecal Coliform - Total Impaired Size by Water Type	:		4.24

Sources:

Agriculture Non-Point Source Wildlife Other than Waterfowl



Potomac and Shenandoah River Basins

Cause Group Code: B51R-02-BAC North Fork Shenandoah River

Location: North Fork Shenandoah River from the 5 mile upper limit of the PWS designation for the Winchester Public Water intake downstream to its confluence with the South Fork Shenandoah River. (Start Mile: 11.72 End Mile: 0.00 Total Impaired Size:

11.72 Miles) This impairment was lengthened in 2010.

City / County: Shenandoah Co. Warren Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

This segment is impaired due to violations of the e-coli bacteria WQS at station: 1BNFS000.57 (6 violations of 37 samples for e-coli) and 1BNFS010.34 (6 violations of 37 samples for e-coli). Initial Listing Date: 2008.

North Fork Shenandoah River

Recreation

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type:

11.69

Sources:

Agriculture Non-Point Source Wildlife Other than

Waterfowl



Potomac and Shenandoah River Basins

Cause Group Code: B52R-01-PH Cedar Creek

Location: Cedar Creek from its confluence with a spring branch near Van Buren Furnace downstream to the U.S. Forest Service

boundary. (Start Mile: 37.11 End Mile: 32.28 Total Impaired Area: 4.83 Miles.

City / County: Shenandoah Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5A

This segment is impaired due to violations of the pH WQS at station: 1BCDR045.30 (2 violations of 12 samples for e-coli.

Initial Listing Date: 2014

Cedar CreekEstuaryReservoirRiverAquatic Life(Sq. Miles)(Acres)(Miles)

pH - Total Impaired Size by Water Type:

4.82

Sources:

Atmospheric Deposition - Acidity



Potomac and Shenandoah River Basins

Cause Group Code: B52R-03-BEN **Cedar Creek**

Location: Cedar Creek from the headwaters downstream to a spring branch near Van Buren Furnace (Start Mile 40.57 End Mile

37.11 Total Impaired Area: 3.46 Miles)

City / County: Shenandoah Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

This segment remains impaired due to violations of the General Standard for Benthics at USFS 4003 in 2002 No additional data available for assessment in 2014. Initial Listing Date 2002.

Cedar Creek Estuary Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life** 3.45

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: B52R-04-BAC Cedar Creek

Location: Cedar Creek from its confluence with a spring branch near Van Buren Furnace downstream to its confluence with Duck

Run. (Start Mile: 37.11 End Mile: 20.29 Total Impaired Size: 16.82 Miles) This impairment was lengthened in 2014 adding

two downstream segments.

City / County: Frederick Co. Shenandoah Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

This segment is impaired due to violations of the e-coli WQS at station: 1BCDR023.47 (2 violations of 12 samples for e-coli); 1BCDR028.86 (2 violations of 12 samples for e-coli) 1BCDR-CC06-FOSR (9 violations of 17 samples for e-coli). Initial Listing

Date: 2012.

Cedar CreekEstuaryReservoirRiverRecreation(Sq. Miles)(Acres)(Miles)

Escherichia coli - Total Impaired Size by Water Type: 16.80

Sources:

Agriculture Non-Point Source Wildlife Other than

Waterfowl



Potomac and Shenandoah River Basins

Cause Group Code: B52R-05-BAC Fall Run

Location: Fall Run and its tributaries from the headwaters downstream to its confluence with Cedar Creek. (Start Mile: 15.17 End

Mile: 0.00 Total Impaired Size: 15.17 Miles

City / County: Frederick Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

This segment is impaired due to violations of the e-coli WQS at station: 1BFLR000.57 (2 violations of 12 samples for e-coli).

Initial Listing Date: 2014

Fall Run Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type: 15.17

Sources:

Agriculture Non-Point Source Wildlife Other than

Waterfowl



Potomac and Shenandoah River Basins

Cause Group Code: B53R-01-BAC Cedar Creek

Location: Cedar Creek from its confluence with Fall Run downstream to its confluence with the North Fork Shenandoah River. (Start

Mile: 18.11 End Mile: 0.00 Total Impaired Size: 18.11 Miles) This impairment was lengthened in 2014 adding a downstream

segment.

City / County: Frederick Co. Shenandoah Co. Warren Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

This segment is impaired due to violations of the e-coli bacteria WQS at station: 1BCDR013.29 (4 violations of 37 samples for e-coli) and 1BCDR000.81 (2 violations of 12 samples for e-coli). Initial Listing Date: 2008. Lower segment added and

impairment lengthened in 2014.

Cedar CreekEstuaryReservoirRiverRecreation(Sq. Miles)(Acres)(Miles)

Escherichia coli - Total Impaired Size by Water Type: 18.09

Sources:

Agriculture Non-Point Source Wildlife Other than

Waterfowl



Potomac and Shenandoah River Basins

Cause Group Code: B54R-01-BAC Passage Creek

Location: Passage Creek from its confluence with Peters Mill Run downstream to its confluence with the North Fork Shenandoah

River. (Start Mile: 19.08 End Mile: 0.00 Total Impaired Size: 19.08 Miles)

City / County: Shenandoah Co. Warren Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A Fecal Coliform / 5A

This segment is impaired due to violations of the e-coli bacteria WQS at stations: 1BPSG001.36 (5 violations of 37 samples for e-coli) and 1BPSG018.13 (3 violations of 12 samples for e-coli). Initial Listing Date: 2006.

Passage Creek Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Eschel	ichia coli - Total Impaired Size by Water Type:		19.07
Passage Creek	Estuary	Reservoir	River
Recreation	(Sq. Miles)	(Acres)	(Miles)
Fecal	Coliform - Total Impaired Size by Water Type:		19.07

Sources:

Agriculture Non-Point Source Wildlife Other than

Waterfowl



Potomac and Shenandoah River Basins

Cause Group Code: B54R-01-PH Passage Creek

Location: Passage Creek from the headwaters downstream to the Route 675 bridge crossing. (Start Mile: 37.38 End Mile: 31.93 Total

Impaired Size: 5.45 Miles)

City / County: Page Co. Shenandoah Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5A

This segment is impaired due to violations of the pH WQS at station: 1BPSG031.99 (2 violations of 5 samples for pH). Initial

Listing Date: 2010

Passage Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

pH - Total Impaired Size by Water Type: 5.44

Sources:

Atmospheric Deposition - Acidity



Potomac and Shenandoah River Basins

Cause Group Code: B55R-01-BAC **Manassas Run**

Location: Manassas Run from the headwaters downstream to its confluence with the Shenandoah River. (Start Mile: 15.10 End Mile:

0.00 Total Impaired Size: 15.10 Miles)

City / County: Warren Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A Fecal Coliform / 5A

This segment remains impaired due to violations of the fecal coliform bacteria WQS at station: 1BMAN002.55 (2 violations of 11 samples for e-coli). Initial Listing Date: 2004.

Manassas Run Recreation		Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
	Escherichia coli - Total Impaired Size by Water Type	:		15.09
Manassas Run		Estuary	Reservoir	River
Recreation		(Sq. Miles)	(Acres)	(Miles)
	Fecal Coliform - Total Impaired Size by Water Type	•		15.09

Sources:

Wildlife Other than Agriculture Non-Point Source

Waterfowl



Potomac and Shenandoah River Basins

Cause Group Code: B55R-02-BAC Borden Marsh Run

Location: Borden Marsh Run and tributaries from the headwaters downstream to its confluence with the Shenandoah River. (Start

Mile: 15.68 End Mile: 0.00 Total Impaired Size: 15.68 Miles)

City / County: Clarke Co. Warren Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

This segment is impaired due to violations of the e-coli bacteria WQS at station: 1BBMR000.20 (8 violations of 18 samples for

e-coli). Initial Listing Date: 2006.

Borden Marsh Run Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type: 15.68

Sources:

Non-Point Source



Potomac and Shenandoah River Basins

Cause Group Code: B55R-03-BAC Willow Brook

Location: Willow Brook from the headwaters downstream to its confluence with the Shenandoah River. (Start Mile: 4.10 End Mile:

0.00 Total Impaired Size: 4.10 Miles)

City / County: Warren Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

This segment is impaired due to violations of the e-coli bacteria WQS at station: 1BWLO000.71 (4 violations of 12 samples for

e-coli). Initial Listing Date: 2006.

Willow Brook

Recreation

Reservoir River
(Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type: 4.09

Sources:

Agriculture Non-Point Source Wildlife Other than

Waterfowl



Potomac and Shenandoah River Basins

Cause Group Code: B56R-01-BAC Crooked Run

Location: Crooked Run excluding the tributary feeding the east arm of Lake Frederick from the headwaters downstream to its

confluence with the Shenandoah River. (Start Mile: 9.23 End Mile: 0.00 Total Impaired Size: 9.23 Miles)

City / County: Frederick Co. Warren Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A Fecal Coliform / 5A

This segment is impaired due to violations of the e-coli bacteria WQS at station: 1BCRO002.75 (9 violations of 60 samples for e-coli). Initial Listing Date: 2002.

Crooked Run		Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
	Escherichia coli - Total Impaired Size by Water Type:			9.23
Crooked Run		Estuary	Reservoir	River
Recreation		(Sq. Miles)	(Acres)	(Miles)
	Fecal Coliform - Total Impaired Size by Water Type:			9.23

Sources:

Agriculture Non-Point Source Wildlife Other than

Waterfowl



Potomac and Shenandoah River Basins

Cause Group Code: B56R-01-DO Crooked Run

Location: Crooked Run excluding the tributary feeding the east arm of Lake Frederick from the headwaters downstream to its

confluence with the Shenandoah River. (Start Mile: 9.23 End Mile: 0.00 Total Impaired Size: 9.23 Miles)

City / County: Frederick Co. Warren Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5A

This segment is impaired due to violations of the DO WQS at stations: 1BCRO-CR01-FOSR (2 violations of 13 samples for DO, no new data in 2014). Initial Listing Date: 2008.

Crooked RunEstuaryReservoirRiverAquatic Life(Sq. Miles)(Acres)(Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type: 9.23

Sources:

Upstream Impoundments (e.g., PI-566 NRCS Structures)



Potomac and Shenandoah River Basins

Cause Group Code: B56R-02-BAC Stephens Run

Location: Stephens Run from an unnamed tributary 1 mile upstream of Crooked Run downstream to its confluence with Crooked Run.

(Start Mile: 1.00 End Mile: 0.00 Total Impaired Size: 1.00 Miles)

City / County: Frederick Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

This segment is impaired due to violations of the DO WQS at station: 1BSTV000.20 (9 violations of 56 samples for E-coli).

Initial Listing Date: 2010.

Stephens Run Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type:

0.99

Sources:

Agriculture Non-Point Source Wildlife Other than

Waterfowl



Potomac and Shenandoah River Basins

Cause Group Code: B56R-03-BAC West Run

Location: West Run from the headwaters downstream to its confluence with Crooked Run (Start Mile: 8.08 End Mile: 0.00 Total

Impaired Size: 8.08 Miles) This segment was lengthened in 2014 due to a segmentation error in the 2012 assessment cycle.

City / County: Frederick Co. Warren Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

This segment is impaired due to violations of the e-coli WQS at station: 1BWST000.20 (8 violations of 46 samples for e-coli)

and 1BWST000.33 (3 violations of 13 samples for e-coli). Initial Listing Date: 2010

West Run Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type: 8.08

Sources:

Agriculture Non-Point Source Wildlife Other than

Waterfowl



Potomac and Shenandoah River Basins

Cause Group Code: B57R-02-BAC Long Branch

Location: Long Branch from the headwaters downstream to its confluence with the Shenandoah River. (Start Mile: 3.87 End Mile:

0.00 Total Impaired Size: 3.87 Miles)

City / County: Clarke Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A Fecal Coliform / 5A

This segment is impaired due to violations of the e-coli bacteria WQS at station: 1BLNG000.24 (14 violations of 37 samples for e-coli). Initial Listing Date: 2004.

Long Branch Recreation		Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
	Escherichia coli - Total Impaired Size by Water Type:	:		3.87
Long Branch		Estuary	Reservoir	River
Recreation		(Sq. Miles)	(Acres)	(Miles)
	Fecal Coliform - Total Impaired Size by Water Type:	:		3.87

Sources:

Agriculture Non-Point Source Wildlife Other than Waterfowl



Potomac and Shenandoah River Basins

Cause Group Code: B57R-03-BAC **Chapel Run**

Location: Chapel Run and tributaries from the headwaters downstream to its confluence with the Shenandoah River. (Start Mile:

11.75 End Mile: 0.00 Total Impaired Size: 11.75 Miles)

City / County: Clarke Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

This segment is impaired due to violations of the e-coli bacteria WQS at station: 1BCPL000.95 (2 violations of 12 samples for e-

coli). Initial Listing Date: 2008.

Chapel Run Estuary Reservoir River (Sq. Miles) (Acres) (Miles) Recreation

> Escherichia coli - Total Impaired Size by Water Type: 11.74

Sources:

Agriculture Non-Point Source Wildlife Other than

Waterfowl



Potomac and Shenandoah River Basins

Cause Group Code: B57R-03-BEN **Chapel Run**

Location: Chapel Run and tributaries from the headwaters downstream to its confluence with the Shenandoah River. (Start Mile:

11.75 End Mile: 0.00 Total Impaired Size: 11.75 Miles)

City / County: Clarke Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

This segment is impaired due to violations of the General Standard for Benthics at stations: 1BCPL000.95 (Impaired for VSCI).

Initial Listing Date: 2006.

Chapel Run Estuary Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life**

> Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type: 11.74

Sources:

Agriculture Non-Point Source Wildlife Other than

Waterfowl



Potomac and Shenandoah River Basins

Cause Group Code: B57R-04-TEMP Roseville Run

Location: Roseville Run from the headwaters downstream to its confluence with Page Brook Run. (Start Mile: 6.4 End Mile: 0.00 Total

Impaired Size: 6.4 Miles)

City / County: Clarke Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Temperature, water / 5A

This segment is impaired due to violations of the temperature WQS at station: 1BRSC001.42 (6 violations of 36 samples for e-

coli). Initial Listing Date: 2010

Roseville Run

Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

Temperature, water - Total Impaired Size by Water Type: 6.39

Sources:

Source Unknown



Potomac and Shenandoah River Basins

Cause Group Code: B57R-05-BAC Shenandoah River

Location: Shenandoah River from its confluence with Long Branch downstream to its confluence with Spout Run. (Start Mile: 39.63

End Mile: 34.23 Total Impaired Size: 5.4 Miles)

City / County: Clarke Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

This segment is impaired due to violations of the e-coli WQS at station: 1BSHN038.48 (4 violations of 12 samples for e-coli).

Initial Listing Date: 2014

Shenandoah River

Estuary Reservoir River

(Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type: 5.40

Sources:

Agriculture Non-Point Source Wildlife Other than

Waterfowl



Potomac and Shenandoah River Basins

Cause Group Code: B58R-02-BAC Dog Run

Location: Dog Run from the headwaters downstream to its confluence with the Shenandoah River. (Start Mile: 6.13 End Mile: 0.00

Total Impaired Size: 6.13 Miles)

City / County: Clarke Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

This segment is impaired due to violations of the e-coli bacteria WQS at station: 1BDGR000.23 (4 violations of 9 samples for e-coli in 2012, no new data available for assessment in 2014). Initial Listing Date: 2008.

Dog Run Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type: 6.13

Sources:

Agriculture Non-Point Source Wildlife Other than

Waterfowl



Potomac and Shenandoah River Basins

Cause Group Code: B58R-03-BAC **Wheat Spring Branch**

Location: Wheat Spring Branch from the headwaters downstream to its confluence with the Shenandoah River. (Start Mile: 4.69 End

Mile: 0.00 Total Impaired Size: 4.69 Miles)

City / County: Clarke Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

This segment is impaired due to violations of the e-coli bacteria WQS at station: 1BWSB000.22 (5 violations of 5 samples for e-

coli). Initial Listing Date: 2008.

Wheat Spring Branch Estuary Reservoir River (Sq. Miles) (Acres) (Miles) Recreation

> Escherichia coli - Total Impaired Size by Water Type: 4.69

Sources:

Non-Point Source Wildlife Other than Agriculture

Waterfowl



Potomac and Shenandoah River Basins

Cause Group Code: B58R-04-BAC Long Marsh Run

Location: Long Marsh Run from the headwaters downstream to the VA/WVA State Line. (Start Mile: 7.09 End Mile: 0.00 Total

Impaired Size: 7.09 Miles)

City / County: Clarke Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

This segment is impaired due to violations of the e-coli WQS at station: 1ALMR001.82 (6 violations of 12 samples for e-coli).

Initial Listing Date: 2012.

Long Marsh Run Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type:

7.09

Sources:

Agriculture Non-Point Source Wildlife Other than

Waterfowl



Potomac and Shenandoah River Basins

Cause Group Code: B58R-05-BAC Shenandoah River

Location: Shenandoah River from its confluence with Craig Run downstream to the VA/WVA State Line. (Start Mile: 28.20 End Mile:

20.29 Total Impaired Size 7.91 Miles)

City / County: Clarke Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

This segment is impaired due to violations of the e-coli WQS at station: 1BSHN022.63 (7 violations of 36 samples for e-coli).

Initial Listing Date: 2012.

Shenandoah River

Estuary Reservoir River

(Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type: 7.91

Sources:

Agriculture Non-Point Source Wildlife Other than

Waterfowl